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ORIGINAL ARTICLES.

CHRONIC RHEUMATIC SORE THROAT.[1]

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Synonym.—Chronic rheumatic laryngitis.

Definition.—This is a painful affection of the throat, chronic in character but varying much from time to time in severity, and attended by only slight physical changes in the parts involved. It usually affects the larynx, and, therefore, it has been described as rheumatic laryngitis; still, in many cases it involves the fauces, the hyoid bone, and, possibly, the trachea, and it sometimes does this without involving the larynx at all; therefore, the term chronic rheumatic sore throat is preferable. It is comparatively frequent, and has doubtless existed from time immemorial, but I have been unable to find any description of it prior to that which I gave at the Ninth International Medical Congress, held in Washington in 1887. The affection occurs mainly during the spring and fall of the year, but we also observe it during the winter, and there are occasional cases in which it continues through the summer months. It is more frequent in men than in women. All the cases that I have seen have been in adults from twenty to sixty years of age. It occurs among all classes with the same impartiality as rheumatism of other tissues.

Anatomical and Pathological Characteristics.—There are no anatomical characteristics, but usually there is slight congestion, circumscribed in character but variable.

Etiology.—It is due to the same causes as muscular or articular rheumatism.

Symptomatology.—It comes on insidiously in many cases, but in others suddenly; usually, however, the patient will have been complaining for months before he applies to the laryngologist for relief. Most of the patients who have come to me have previously consulted several physicians and have received almost as many different diagnoses, but all have feared either tuberculosis, syphilis or cancer, many of them having a fixed dread that they are suffering from cancer. The general health is not impaired. The patient complains simply of a localized pain, which is frequently referred to the cornu of the hyoid bone, and I have observed it more often on the right than on the left side. Next in frequency it is felt in the larynx, generally upon one side only. It may be felt, however, in the trachea, the tonsils, and sometimes in the side of the base of the tongue. This pain is increased by pressure in nearly all cases, perhaps in all, and it may be increased by phonation or deglutition, but it often completely disappears while the patient is eating. In any case it is liable to shift its position from time to time, though frequently it is persistent for a long period in one locality. Sometimes, instead of an actual pain the person will complain simply of a sensation of fulness or swelling of the part, or a feeling of dryness, itching or burning; or it may simply be a sensation of discomfort which he cannot well describe. Usually the voice is not affected, but it is common for these patients to complain of fatigue after using it a short time. We find no constitutional symptoms, no fever, and the pulse is not quickened excepting from alarm. Usually there is no cough, but in some cases, especially where the larynx is involved, a hacking and annoying cough is a symptom. The digestive organs may act perfectly, but ordinarily we find the tongue more or less covered with a white or yellowish-white coating, and although the appetite is usually good the patient is often troubled with eructations of gas from the stomach, and with flatus. The bowels are apt to be constipated. Upon laryngoscopic examination we may find localized congestion confined generally to a small spot in the region of the pain, and there is sometimes slight swelling. We find, however, that the congestion diminishes or disappears, or changes to other localities from time to time, therefore there is nothing characteristic in the appearance of the parts.

Diagnosis.—The affection is liable to be mistaken for neuralgia, for enlarged glands at the base of the tongue, for enlarged veins, for chronic follicular tonsillitis or glossitis, for syphilitic or tubercular sore throat, for tobacco sore throat, or for cancer. The essential points in the diagnosis are the uncomfortable sensations of pain, which change usually with the changes in the weather, a rheumatic diathesis, and the absence of any distinct physical signs.

From varicose veins, enlarged glands at the base of the tongue, and from follicular tonsillitis or glossitis,

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all of which sometimes present similar symptoms, this disease is to be diagnosed by a careful inspection of the part, by the course of the disease, and by the results of treatment. By inspection we may at once ascertain whether the veins or the glands at the base of the tongue are enlarged; but, unfortunately, we cannot tell whether enlargement of the glands or a varicose condition of the veins is the cause of the patient's symptoms. Some patients have these conditions and yet suffer no inconvenience whatever, while in others they give rise to serious discomfort. Therefore, if we find varicose veins or enlarged glands at the base of the tongue, with evidence of what seems rheumatic pain in this locality, we will have to remove these conditions before we can exclude them as the cause of the patient's discomfort. If the patient has a rheumatic diathesis, which can be ascertained by inquiry, it is a point in favor of the diagnosis of rheumatic sore throat.

In follicular tonsillitis and glossitis the signs, upon inspection, are characteristic, and we may usually take it for granted that the symptoms of which the patient complains come from these diseases. We might possibly be mistaken in cases of this sort, but the results of treatment would clear up the diagnosis. Sometimes the diagnosis is extremely difficult, but in the majority of cases, having inquired carefully into the history and excluded the affections I have spoken of, we may make an accurate diagnosis.

From syphilis this affection may be distinguished by the history and physical signs. In the early stage of syphilis and in the secondary and tertiary attacks of the disease there are in nearly every case physical signs which are characteristic, which signs never occur in the disease under consideration. There are occasional instances of syphilitic sore throat where the signs are not characteristic, but in these I have never known the patient to complain of the persistent pain or discomfort which characterizes the rheumatic affection, and I have seen no reason for confounding the two diseases.

From tuberculosis we may distinguish this by the absence of the constitutional symptoms in the rheumatic affection and their great prominence in the tubercular disease; the moderate pain or discomfort in the rheumatic affection and the severe pain in the tubercular disease; by the absence of ulceration in the former, while in the latter we find superficial ulcerations, which in many cases extend over a considerable part of the region in which the patient complains of pain, while in occasional instances there is deep ulceration.

From tobacco sore throat it may be distinguished by the history, and by the absence of plaques that appear as if the surface had been brushed over with nitrate of silver. However, there are cases of tobacco sore throat in which we find no physical signs, but in these the patient usually complains of a burning sensation in the part that is relieved soon after the tobacco is discontinued. If we find that the patient is an habitual user of tobacco, and stopping its use improves his symptoms at once, and if there are no symptoms of rheumatism in other parts of the body, there will be no difficulty about the diagnosis.

From neuralgia it is often difficult to distinguish the rheumatic sore throat. The presence of slight congestion or swelling is of considerable value in the diagnosis, for in neuralgia there are not likely to be any of these local signs. In most cases of rheumatic sore throat pressure increases the pain, while in neuralgia it does not increase it, but may relieve it. In rheumatic sore throat changes of the weather from fair or clear to cloudy and damp almost always aggravate the symptoms, while in neuralgia they have but little effect. In neuralgia of the throat it is common for the patients to complain of pain in the latter part of the day when they begin to get tired, or after any exertion which makes them fatigued. In rheumatic sore throat the pain may be worse in the morning, and is not particularly increased by fatigue.

From cancer we distinguish it by the physical signs. In all cases of cancer which I have met there have been early and distinct physical changes, with more or less induration, gradually increasing irregular swelling, and finally deep ulceration. These changes do not occur in rheumatic sore throat. In cancer of the throat the patients are not likely to experience pain long before some of these physical alterations occur. In the rheumatic trouble pain is the essential symptom, and the physical changes are not marked.

Prognosis.—Unless relieved by treatment we may expect these cases to continue for several months, or even years, but there is no danger so far as life is concerned.

Treatment.—In treating these cases our first attention should be directed to prophylaxis. With this in view we must be careful that the patient is well clothed and housed, and that he is not exposed to undue changes of temperature or to wet or damp atmosphere. Rheumatic patients should always wear either wool or silk next to the body throughout the whole year, light in summer and heavy in winter, and it should be worn both night and day. They should be careful that all the excretory organs of the body perform their functions properly. They should eat sparingly of such albuminous substances as meat or eggs, and should live largely on vegetables or fruit. The vegetable acids are often advantageous. Whatever is eaten it is especially important that digestion be perfectly performed so that the system be not poisoned by the formation of ptomaines.

For the local treatment of the disease sedative or stimulant applications may be made with almost equal chances of relief. Applications of the tincture of aconite to the painful spot four or five times a day will sometimes give considerable relief. I have frequently found relief from the application of stimulants, as, for example, solutions of sulphate of zinc. The application of morphine in solution or in powder is sometimes a source of much comfort to the patient. I have derived more benefit, I think, from the application of a spray composed of morphine, carbolic acid and tannic acid, in glycerin and water, than from anything else. This solution consists of 4 grains of morphine, 30 grains each of carbolic and tannic acids, and 4 drachms each of glycerin and water. I apply it in full strength, and frequently give it to the patient in a solution of half this strength, to be used daily in the form of spray. In some cases the strong tincture of iodine gives relief; in others the application of a 60 grain solution of nitrate of silver has proved beneficial. These applications do good on the same principle that blisters sometimes relieve a rheumatic joint. The most important part of the treatment is the internal medication. For this purpose salol, the salicylate of sodium, iodide of potassium, guaiac, phytolacca, and the oil of gaultheria may, one or all, be used at different times with benefit. The salicylate of sodium in doses of 7½ to 10 grains four or five time a day; the oil of gaultheria in doses of 15 minims three or four times a day; the ammoniated tincture of guaiac in doses of a teaspoonful three or four times a day, or the resin of guaiac in lozenges, frequently repeated, are of considerable value. But I have derived the most benefit from the extract of phytolacca and salol, combined with a laxative, and sometimes with the iodide of potassium, or with the bromide of potassium for its sedative effects. I give the extract of phytolacca in doses of from 2 to 4 grains, and salol in the same dose, or sometimes in doses of 10 grains. Tincture of bryonia and of cimicifuga have been claimed to be valuable remedies in the treatment of rheumatism. I have used them both, apparently with slight benefit in some instances, but the obstinate cases have done better under the phytolacca and salol, with the occasional use of the other remedies already suggested.

I have records of over fifty well-marked cases of this disease observed during the past four or five years, from which I deduced what I have said in this paper regarding the symptomatology, prognosis, and treatment.

70 STATE STREET.

The Astor Bequests to Charities.—By the will of the late John Jacob Astor two hospitals in New York City are benefited to the extent of $100,000 each; namely, the St. Luke's Society and the new Cancer Hospital.

DRAINAGE IN ABDOMINAL AND PELVIC SURGERY.[1]

BY JOSEPH PRICE, M.D.,
OF PHILADELPHIA.

THE absolute necessity of drainage in abdominal surgery has led to a careful estimate of its value in all surgery. Wherever there is serous effusion or leakage of any kind in the line of incision or in the cavity caused by the removal of any neoplasm, the cicatrization of the wound is interfered with, either by the nature of the fluid, or by the mechanical pressure exerted by that fluid under tension. In the pelvis the presence of fluid as a pathological accumulation at the seat of removal, involves a nidus of remaining unhealthy tissue, where physiological or healthy digestion is impossible. Illustrative of this fact I have the following specimens: In the first there is a pyosalpinx with an appendicitis and cœcal ulcer. The cœcal ulcer necessitated the stitching of the bowel, while the appendix stump was inverted and closed peritoneally. The pus-tube was universally adherent, and in its enucleation débris of unhealthy tissue was necessarily left to a greater or less extent. The value of drainage is here apparent. In the second case, the condition was analogous, save that there were present double pus tubes with an ovarian abscess.

The third specimen is that of an extra-uterine pregnancy, with rupture, recurring hæmorrhages, and general peritonitis. The abdomen was full of blood. In a fourth specimen there is a small adherent cyst, with a pus tube on the opposite side.

This group of cases was operated on in the last ten days, and all the patients were suffering from extreme exhaustion, from loss of blood, and the presence of pus. In all these cases the trouble is universally of long standing, where all imaginable complications existed. Foremost among these complications were the bowel adhesions. In one week I was compelled to stitch the intestine five times. In this connection the care required in dealing with diseased serous surfaces claims especial attention. Not only must the primary lesion of the intestine be intelligently dealt with, but the secondary disease incident to its pathological adhesions, and the ragged remains incident to its separation must also receive extreme attention. In no way can they be rendered inoffensive, save by drainage. In speaking of remaining débris, it may be well to insist upon a distinction between a remainder that is absolutely unavoidable, and that which occurs through timidity, inexperience, ar gross carelessness. Such remainders as these are nothing less than criminal. When I find them or hear of them, I know one of two or three things has caused them. When I hear of a

[1] Read before the Philadelphia County Medical Society, February 2, 1890.

patient being operated upon by the same man two or three times, I estimate the operator's ability or conscience accordingly. All the antiseptics, whether in bottles or consciences, will not make careless surgery give good results, or free the patient from the dangers of repeated operations. In four cases which have lately come under my notice, three of the patients died of operations repeated not less than three times. Flesh and blood will stand about this much. If the tension is too great, the harp-string will strain and snap, be it saint or sinner that plays on it. Necessary remainders are those produced by adhesions, in parts not removable, save at a risk greater than is involved by leaving them. Such remainders as these should be trimmed to the utmost. If they are on the bowel, and their presence threatens too much the welfare of the patient, intestinal anastomosis or bowel resection may be resorted to.

Mechanical treatment of all bleeding points need not here be discussed. After all major leakage has been controlled, the hot drenching of the abdominal or pelvic cavity must be resorted to, for the removal of débris, shreds, and clots. After this, even sponge or lint packing may be found necessary. The insertion of the drainage tube down to the lowest involved locality must then be made. Care must be taken that the tube makes no injurious pressure upon either the diseased or healthy portion of the intestine. In either case it will be fatal to uninterrupted recovery, and is likely to produce fistula. The use of large drainage tubes either in abdominal or general surgery is to be deprecated as unnecessarily impeding healing and encouraging suppuration. A small tube, with a calibre sufficient to insure its not being obstructed by escaping fluids, when somewhat viscid, is all that is called for.

The failure of the earlier operators to appreciate the cause of death in their more complex cases, was, at the bottom, really the cause of that critical period of ovariotomy when the congestive chills of dread made surgeons tremble and hesitate at deciding for or against the operation. In the earlier post-mortems of patients operated upon, the pelvis was found full of serum and clots. Had the fear of this abdominal sanctuary not been by tradition so dreadful, that it was thought more rash to open it to a drainage tube than to close it to gallons of fluid and pounds of clot, the tale would have been different and cavilers sooner silenced.

Purulent cases, where a nidus of infection could not by any means be primarily removed, would have yielded to drainage, while they died of turpentine and poultices, that made the abdomen warm, to hasten the infection. The same is true of all inflammatory products arising from any source whatever. This is a point well illustrated by two cases of puerperal peritonitis I lately operated upon. They had puerperal fever of five weeks' standing, with high temperature and general collapse, and were full of pus to the umbilicus. There were huge ovarian abscesses, with bowel adhesions. The tubes and ovaries were removed and the bowel carefully stitched. The abdominal cavities were flooded with hot water twice, which did more to bring up the pulse than anything else. The result is typical—complete recovery without bad symptoms.

It must be insisted upon that the mortality of this work would be so great without drainage that the cases would have to be left to their fate by the surgeon in simple self-defence. Operators who will not recognize this as proven beyond doubt, will still go on having mortalities that they cannot explain. Their cases, while not worse than others, will suffer by comparison, and their bad results be apologized for.

While operation in all these cases is to be insisted upon, we will constantly see others where typical surgery is impossible; the patients are too far gone to allow prolonged operation. In such cases the immediate cause of the dangerous condition, if pus, is to be eliminated by drenching and drainage, and after the patient has rallied, some days later, the operation may be completed. Too much surgery in extremely debilitated patients will kill just as surely as none at all, as I have long since insisted upon and practised with gratifying results.

OPERATIVE METHODS AS ILLUSTRATED BY THE HISTORY OF OVARIOTOMY IN AMERICA.[1]

BY LEWIS S. McMURTRY, M.D.,
OF LOUISVILLE, KY.

THE history of ovariotomy is the history of abdominal surgery. For many years after the establishment of this operation abdominal surgery was limited to the removal of ovarian tumors. The knowledge and experience gained thereby led to other procedures, until the present proud position of peritoneal surgery was attained. Beginning in America in 1809, it has been persistently and zealously cultivated by American surgeons up to the present time. A retrospect of the origin, early history, struggles, and triumphs of this heroic branch of surgery is replete with instruction. That its pioneers were subjected to criticism and abuse, leading oft-times to professional ostracism; that they were treated with incredulity, and charged with legalized murder; and throughout all this misrepresentation and persecution that they pursued the stern line of duty, are circumstances which make this the most thrilling chapter in the history of American surgery.

[1] Read, by invitation, before the Philadelphia County Medical Society February 25, 1890.

It is the purpose of this paper to deal with methods rather than men, and to endeavor to deduce from the record some lessons bearing upon the practice of the present time.

In December, 1809, Dr. Ephraim McDowell, at his home in Danville, Kentucky, performed the first ovariotomy. The writer of this sketch was born and reared near this town, educated there, and resided there until recently. Having known since my boyhood the immediate family and former patients of Dr. McDowell, I have had exceptional opportunities to inform myself as to the operator and his work. In 1793 and 1794 McDowell was a student of medicine in Edinburgh, where he was a pupil of John Bell. From this eminent teacher he learned the nature of ovarian tumors, and was informed of the perils which would be attached to any attempt at their removal. He knew that no surgeon, however great his skill, had ever attempted such a bold and perilous procedure. Fifteen years after his return to America, and after attaining wide-spread celebrity as a surgeon, especially as a lithotomist, he performed his first ovariotomy. The operation, of course, was executed without an anæsthetic. The incision was made to the left of the median line, about three inches external to the border of the rectus muscle, and was nine inches in length. After opening the peritoneum he first tied the pedicle with a strong ligature, and then cut open the tumor and removed its contents. He then divided the pedicle and removed the sac. As soon as the incision was made into the abdomen, he states, the intestines rushed out upon the table, and were not replaced until the operation was completed, which, he adds, occupied twenty-five minutes. He then turned the patient upon the left side to allow all fluids to escape. He closed the incision with interrupted sutures, and brought out the ligature attached to the pedicle at the lower angle of the wound. Adhesive strips and a bandage completed the dressing; the patient was put to bed, and he prescribed "a strict observance of the antiphlogistic regimen." At the end of twenty-five days the patient returned home in good health.

The special features of McDowell's technique worthy of note are: (1) The incision was made through the muscular layers of the abdominal wall three inches external to the rectus muscle. (2) The cyst was not evacuated until after the pedicle was lighted. (3) An effort was made to cleanse the peritoneum of fluids. (4) Drainage was sought by bringing the ligatures out at the lower angle of the wound. (5) The operation occupied only twenty-five minutes, expedition being more hastened, doubtless, by the absence of an anæsthetic than otherwise.

McDowell operated thirteen times, with the result of eight recoveries and five deaths. In his report of his second case he uses the expression: "I laid her side open," as in the former case. In his third case he adopted the median incision, saying in his report of this case: "I changed my place of opening to the linea alba."

Dr. McDowell was a man of splendid presence and aristocratic bearing. He was quite a "dressy" man, neat in his appearance and cleanly in his person and habits. That McDowell appreciated the responsibility he had incurred, and was aware that he was establishing a great operation, destined to add lustre to the science and art of surgery, is apparent in the following extract from his reply to a Dr. Henderson, who had criticised McDowell's report for its want of "particular detail." Replying through the columns of the *Eclectic Repertory and Analytical Review*, of Philadelphia, McDowell says:

> "I thought my statement sufficiently explicit to warrant any surgeon's performing the operation when necessary, without hazarding the odium of making an experiment, and I think my description of the mode of operating, and of the anatomy of the parts concerned, clear enough to enable any good anatomist, possessing the judgment requisite for a surgeon, to operate with safety. I hope no operator of any other description may ever attempt it. It is my most ardent wish that this operation may remain to the mechanical surgeon forever incomprehensible."

This quotation stamps McDowell as a surgeon of broad and elevated views, fully aware that he had opened a new and rich domain in surgery.

McDowell first operated in 1809, and in July, 1821, Dr. Nathan Smith, Professor of Surgery in Yale College, performed ovariotomy at Norwich, Connecticut. Dr. Smith had never heard of McDowell's work, and operated in an entirely original way. The incision was made in the median line, and was three inches in length. He states that he waited until the blood ceased flowing before he opened the peritoneum. The omentum being adherent, he tied it away with ligatures made from a kid glove. The pedicle was also tied with the same material, the ligatures cut short, the pedicle dropped, and the incision closed. The patient made an uninterrupted recovery, and sat up and walked at the end of three weeks. Dr. Smith undertook another operation for ovarian tumor, but desisted on account of adhesions, and closed the incision. The patient recovered from the operation. Notable features of his technique were: (1) the short incision; (2) protection of the peritoneum from the blood of the incision; (3) ligature of omental adhesions; (4) ligature of pedicle, ligature cut short, and pedicle dropped; (5) animal ligatures.

Dr. Alban G. Smith, of Danville, Ky., was the third to perform ovariotomy. He assisted McDowell in several of his operations, and operated on May 23, 1823. He reported the operation in the *North*

American Medical and Surgical Journal, January, 1826. He followed McDowell's method in operating, and brought the ligature out through the lower angle of the wound. His patient recovered. That surgical opinion and practice often travel in a circle is aptly illustrated by the fact that he administered a decoction of senna to the patient the night after the operation, producing free evacuations the next day, and several the day after. Peaslee mentions this to illustrate the crude methods of early days. We all know now that such medication is based on sound principles, and Dr. Alban G. Smith would, if living, find himself thoroughly *en rapport* with the most advanced methods of the day.

McDowell died in 1830. Nathan Smith did not press his work further after his second operation, which was only an exploratory incision. From this period until 1843 the operation lapsed into obscurity, and was practically abandoned by the profession. A few brave surgeons would occasionally attempt it only to abandon their purpose when adhesions were encountered. Among these were Trowbridge, of New York; Mussey, of Dartmouth; and a few others. In 1829, Rogers, of New York, operated successfully, adopting the method of treating the pedicle which Nathan Smith had practised. Billinger, of Charleston, S. C., operated successfully in 1835, tying the pedicle with animal ligatures, cut short, and pedicle dropped, after Nathan Smith's method. From 1835 until 1843 there were absolutely no cases of ovariotomy in this country. In the latter year, Dr. John L. Atlee, of Lancaster, Pa., and Dr. Alexander Dunlap, of Springfield, Ohio, began their work, joined by Dr. Washington L. Atlee, of Philadelphia, the following year, and revived the operation in America.

In England, Charles Clay did his first operation in 1842. Mr. Spencer Wells began to operate in 1858. The status of the operation in Great Britain at the time the Atlees and Dunlap began their work may be inferred from the fact that the first successful ovariotomy in a London hospital occurred in 1846, Mr. Cæsar Hawkins being the operator, three years after the revival of the operation by the Atlees and Dunlap. J. Taylor Bradford, of Kentucky, entered upon his series of thirty operations, with twenty-seven recoveries, in 1853; and Gilman Kimball, of Lowell, Mass., joined his colleagues in the great work in 1855. Peaslee states that the operation did not secure a permanent footing in the United States until 1855, and then only in the country. The surgeons of the cities, as a rule, opposed it for some years afterward. Ten years later, 1865, the operation was generally accepted. Operative surgery received a great impetus in the discovery of anæsthesia.

No one can read Dr. John L. Atlee's report of his first case, which was the first double ovariotomy ever performed, without recognizing the courage, skill, and sagacity of a master in surgery. He operated with rapidity; he carefully arrested all bleeding; he cleansed the peritoneum, and used silk ligatures. He transfixed the pedicle with a double silk ligature, and tied each half with half the ligature. He adopted McDowell's method, and brought the ligatures out through the lower extremity of the wound to secure drainage. Dr. Washington L. Atlee performed his first operation in March, 1844. It was unsuccessful. His next was done five years later, and was successful. He adopted the methods of his brother in operating. Dunlap treated the pedicle after McDowell's method. Dr. E. R. Peaslee began his series of ovariotomies in 1850, and Sims, Thomas, and Emmet, a few years afterward, joined in the work. In October, 1871, Peaslee had collected 739 ovariotomies performed in this country, with successful results amounting to about sixty-eight per cent.

In 1858 Mr. Jonathan Hutchinson, of London, performed two ovariotomies, and devised the clamp for fixing the pedicle externally. This method was adopted and modified by W. L. Atlee, who led all American operators of his day in the number of his cases. The clamp came into general use, and had the confidence of ovariotomists generally until a recent period. For many years the method of securing the pedicle was considered the pivotal point in the operative technique, and the ingenuity of operators was expended on this feature of the opetion. Under the leadership of Spencer Wells in England and Atlee in the United States, the clamp superseded other methods.

The causes of death after ovariotomy were enumerated at this same period (1873), by Peaslee, as follows, his deductions being based upon post-mortem examination of fifty cases. The causes are given in the order of frequency: Peritonitis, septicæmia, shock, exhaustion, hæmorrhage, strangulation of intestine, diarrhœa, erysipelas, tetanus, and ulceration through the bladder. Based upon this view of the pathology, peritonitis was regarded as the greatest danger to which a patient was subjected after ovariotomy, and opium in heroic and repeated doses, in accordance with the accepted therapeutics of that day, was the conspicuous feature of the after-treatment. This treatment was universally accepted by the profession. The turning-point in the history of ovariotomy in America dates from the correction of this error in pathology. When it became known that the greatest peril of a patient during and after ovariotomy is septicæmia; and that the peritonitis hitherto attributed to traumatism was in reality due to septic infection, this department of surgery entered upon an advance which in grandeur and brilliancy has no

parallel in the history of our art. This great fact was heralded in America by Marion Sims and met with universal acceptation. Sims instituted a method of drainage after ovariotomy by puncturing Douglas's cul-de-sac and passing a tube into the vagina. This was soon abandoned, though it is now practised by Martin, of Berlin.

With the acceptance of the fact that the supreme danger after ovariotomy is in septic infection, a new era in ovariotomy began in America. Synchronous with the adoption of operative methods and after-treatment based upon this knowledge the clamp was abandoned, and the intra-peritoneal treatment of the pedicle was restored. The most important single contribution made to pelvic and abdominal surgery is the system of surgical cleanliness instituted by Lister. Burdened with the spray, pads, macintosh, and chemical solutions at first, it has been simplified and stripped of its dangers and its burdens, and found to consist, in its essence, of absolute cleanliness. With the application of this principle—the outgrowth in practical surgery of the researches of Pasteur, Lister, Koch, Watson-Cheyne, and others upon the nature of fermentation, putrefaction, suppuration, and septic infection—results have been obtained of which our predecessors scarcely dreamed. From ovariotomy the work extended to other organs within the peritoneal envelope, until all have been included.

When Marion Sims, a few years ago, confidently predicted that the time was near at hand when gunshot wounds of the abdomen would be treated by abdominal section and suture of the wounded viscera, it was considered by many as the dream of an erratic man of genius. Already a number of successful cases have been recorded in America. Ovariotomy has within a few years grown from an operation with desperate mortality to be the most successful major operation in surgery. From a last resort, attempted by only a few bold spirits in the profession, it is now done habitually by surgeons in every State of the Union. Along with the extension of surgical treatment to the other organs invested by the peritoneum has come a greater perfection in operating, so that the work of the best operators has a perfection and finish approaching the ideal in surgical art.

Time will not permit even an enumeration of the additions contributed in America to modern ovariotomy and the valuable contributions to the surgery of the intestines and other abdominal organs, all of which is the out-growth of the work inaugurated by McDowell.

In conclusion I will venture to direct attention to one important lesson to be deduced from the study of the history of ovariotomy in the country of its birth. We have seen from what has preceded that the operation grew to its grand proportions in the hands of a few. All who have labored in this field of surgery realize how difficult is diagnosis even with experience; how exacting the technique; how varied the work in cases apparently similar; and how fatal an error. Of all departments of surgical practice none requires such rigid and prolonged apprenticeship for successful results. No surgeon can rely upon simple cases. What is most needed to maintain the high standard fixed for abdominal surgery by its founders and its eminent practitioners is men in every community especially trained and equipped for this special work.

SULPHONAL IN CHOREA.

BY JOHN A. JEFFRIES, M.D.,
OF BOSTON.

THE treatment of chorea has proved to be such a stumbling-block in the way of physicians that it is only with reluctance that the writer has ventured to bring the use of sulphonal in such cases into notice. It may be that my results are purely accidental; that they are purely imaginary on my part does not seem possible, as the results have, in several cases, been determined by other physicians, and have satisfied the patients.

Sulphonal has recently been advised in various forms of muscular spasm, but not, so far as I know, in chorea; yet, judging from my experience, the drug is able, at times, to suppress promptly the choreic motions.

The cases reported are taken from my service at the Boston City Dispensary, with the exception of two treated by me in the service of Dr. Knapp, at the Hospital. A good many others have been treated with about the same results, but time and expense have prevented any large series of cases.

It will be seen that only five of the cases were simple chorea—that is, first attacks of recent origin. These all recovered within three weeks. In two arsenic had failed, in two was never used; in the fifth either arsenic or sulphonal alone failed, but together they were quickly followed by improvement. The other five cases were either of long standing, or second or third attacks; four were at the period of puberty; three of these cases got well at least for a month; in three arsenic had failed, in two was not used. Two have not recovered with any treatment.

To me it seems clear that the sulphonal acted favorably, and that improvement was not simply due to change in the disease, or to arsenic previously given. Nevertheless, I hold that sulphonal is only indicated as an adjuvant to arsenic. On sulphonal alone the patients were apt to grow pale, and clearly showed the need of a tonic. This want arsenic supplies, and, at the same time, directly affects many

cases of chorea. How sulphonal acts I do not know; it was given in the first case to counteract the psychical symptoms, and with a hope of affecting the motions.

CASE I.—Well grown, thirteen-year-old girl, with nothing of note aside from the chorea, but loss of one eye from "the use of eye drops." Claims to have been frightened five years ago, since when has had chorea; much worse in the summer than during the winter. No history of painful or swollen joints. Face, tongue, eye, vocal cords, body, arms, and legs all markedly affected. Motions sharp, extensive and continuous. Has lately suddenly passed water twice. Knee-jerk, heart and lungs normal; bowels regular, vision, o. d. $\frac{5}{IV}$. Mind distinctly affected. Fowler's solution prescribed, July 28, 1888.

August 18. Much improved as to chorea, but has an extensive arsenic eruption on face and body. Stopped Fowler's solution and gave sulphonal, 2 grains three times daily.

25th. Marked improvement, mother thinks that the "second medicine is the best." Dose increased to 5 grains.

Sept. 6. No choreic motion since August 27th. Stopped sulphonal.

15th. Chorea has just re-appeared, as a trace, in tongue and fingers. Vertigo. Sulphonal, 5 grains night and morning.

18th. Possible trace of chorea in fingers.

27th. Well as regards chorea, but slightly anæmic. As this case was found to be amply able to pay it was discharged, and no further record can be given.

CASE II.—Boy ten years old. (August 27, 1888.) Has had chorea each of the last two summers. The first attack was attributed to fright. No history of pain or swelling in joints. Heart normal. Boy very cross and excitable, face and right arm distinctly affected.

Sept. 17. Has used no medicine. Much worse. Speech affected. Ordered Fowler's solution, 5 minims three times daily.

20th. No better; eyelids swollen and stomach irritable. Stopped arsenic and gave sulphonal, 2 grains, morning and noon.

24th. Has improved in every respect; "trembles the least bit."

29th. Worse again; stopped sulphonal. In the course of a month patient ceased to attend. Still had slight chorea.

Here sulphonal certainly appeared to do good at first, but was not continued long enough. The boy belonged to the dirty, shiftless class.

CASE III.—Girl, nine years old. (May 1, 1889.) Three weeks ago had some slight febrile symptoms, pain in the knees, and chorea began at same time. Now has pronounced chorea of all the voluntary muscles, with night attacks. Heart normal. Gave Fowler's solution, 3 minims three times daily.

May 6. No better; changed to sulphonal, 2 grains, three times daily.

8th. Much better; can talk; arms steady, feet nearly so; feels sleepy.

15th. Well, though constipated. Stopped sulphonal, gave cascara sagrada.

29th. No relapse; bowels regular.

CASE IV.—Girl, fifteen years old. (May 24, 1889.) Similar trouble two years ago; no cause found. Disease has lasted six weeks and is growing steadily worse. Now has chorea of arms and face; motions very sudden and sharp, of the kind often erroneously called electric. Has been treated with Fowler's solution, iron, and antipyrin. Gave sulphonal, 5 grains, three times daily.

May 31. Watched her for some time and saw no twitching. Medicine stopped. About four weeks later the trouble began again, but the further history is not known.

CASE V.—Girl, twelve years old. (June 1, 1889.) Two years ago began to shake and one eye became affected. No cause found. Internal squint; left external rectus weak; pupils react to light and accommodation. Heart and lungs normal; bowels regular; no difficulty with urination; marked chorea of left arm and left leg; knee-jerk absent; no atrophy, paresis, contracture, paræsthesia or anæsthesia. Gave sulphonal, 3 grains, three times daily.

June 6. Very slight improvement. Gave up sulphonal. With eyeglasses and Fowler's solution the patient improved until September 16th. She then returned with her glasses broken and general chorea.

Jan. 1, 1890. Still no better, in spite of glasses.

CASE VI.—Boy, four and a half years old. (June 5, 1889.) First attack. Had measles when six months old. Is the ninth of ten children, three of whom died of heart trouble following chorea. Father has chronic articular rheumatism. Disease began two weeks ago in the hands; now face, neck, speech, eyes, legs, bowels, and bladder are affected. Last night, for the first time, motion was noticed during sleep. Cross and restless; heart normal; has made no complaint of pain. Sulphonal, 3 grains, three times daily.

June 7. Better; sleeps well; added tinct. ferr. chlor., 3 minims, three times daily.

21st. Much better.

July 7. Slight if any motion. Has had no medicine for a week; iron alone given.

August 26. Is said to have slight motion if much excited. Has otorrhœa.

CASE VI.—Boy, fifteen years old. (June 26, 1889.) No family or personal history indicating the cause of his disease. Had chorea when three and again when thirteen years old. Pale; heart normal; chorea of hands, tongue, and throat. Sulphonal, 6 grains, three times daily.

July 1. No signs of chorea to-day.

5th. No signs of chorea, but has a slight tremor of voice if excited. Giddy. Stopped sulphonal, and gave Fowler's solution, 3 minims three times daily.

16th. Voice the same; otherwise well.

24th. Perfectly well.

CASE VIII.—Girl, twelve years old (June 25, 1889). First attack; no pains. Heart normal. Motion of arms, legs, face, and tongue. Gave sulphonal, 5 grains three times daily.

July 1. No better; changed to Fowler's solution, 5 minims three times daily.

5th. Has been vomiting. Chorea no better. Reduced Fowler's solution to 2½ minims, and added sulphonal 3 grains three times daily.

8th. Is quieter, and has had no more vomiting.

12th. Quieter; face swollen from a diseased tooth.

19th. Chorea worse; she twitches during sleep. Increased Fowler's solution to 5 minims, and gave potassium bromide 12 grains in place of sulphonal.

22d. Better, but the bromide has not improved sleep.

August 2. Worse. Fowler's solution in 7 minim doses; sulphonal, 2 grains.

7th. Same condition.

15th. Better; eyes began to swell, arsenic stopped. Sulphonal, 10 grains daily.

28th. Has been in the country one week. No traces of chorea.

Nov. 5, 1889. Since going to school relapsed for two weeks.

CASE IX. Girl five years old. (July 5, 1889.) First attack began seven weeks ago. Chorea of the entire body. Heart, bowels, bladder, and knee-jerk normal. Fowler's solution and sulphonal, 3 grains of each three times daily.

July 9. Chorea better, but has had much epistaxis and pain in the bowels. Stopped Fowler's solution.

17th. Chorea much better, no epistaxis, color not so good. Added iron to treatment.

August 2. Has had no medicine for five days and has been quiet for ten days.

26th. The patient came back from the country with some chorea. She steadily grew worse in spite of Fowler's solution and sulphonal until on September 7th she had a chill, epistaxis and great increase of chorea. The same occurred on both the following days in spite of quinine. On the afternoon of the 12th I made a microscopical examination of the blood and found numerous plasmodia malariæ. No enlargement of the spleen could be detected. Quinine was then given in very large doses, and no more chills occurred. Treatment since has been Fowler's solution in small doses, and now, October 24th, the child is a picture of health.[1]

CASE X.—Girl, eighteen years old. (July 7, 1889.) Chorea began after fright two days previously. Motion is confined to arms but is distinct and extensive. Heart normal. Knee-jerks almost abolished. Gave sulphonal, 5 grains, three times daily, and iron.

September 4. Patient returned a few times and has now been at work, and well, for a month.

The above are the first ten cases in which sulphonal was used of which I have records. In one other, in which a mitral murmur existed, endocarditis and fever came on in forty-eight hours, and the case was sent to the hospital. The cases are all called chorea on account of the typical motion and absence of symptoms pointing to other trouble, though I am far from sure that the ten cases are examples of one disease. Just before my term of service ended, I ordered sulphonal in two cases of chorea from imitation with, I understand, no beneficial results.

If sulphonal is found efficient in some of those cases where arsenic fails, or is not well tolerated, my expectations will be filled. In my experience sulphonal has proved more efficient than any other drug excepting arsenic. All my cases were also ordered a daily sponge bath, simple diet, and sleep in the middle of the day.

[1] The child was again taken with severe chorea on December 24th, and developed influenza a few days later. She was sent to the hospital.

THE TREATMENT OF CERTAIN FORMS OF GANGRENE OF THE INTESTINE.[1]

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I PROPOSE to consider briefly here the treatment of the degenerated or gangrenous condition of the intestine which is frequently met with in cases of pelvic or abdominal suppuration. In these cases the intestinal coats are destroyed by direct extension of the inflammation. The condition is common in tubal or pelvic abscess and in the perityphlitic abscess of appendicitis. In such cases we frequently find the abscess cavity walled in by adherent loops of intestine; the intestinal coats being in contact with the purulent accumulation and presenting on their surface one or more cheesy, degenerated spots, of a purple or black color, and from one-half to two inches in diameter. These spots often have in their centres perforations, generally of small calibre, but sufficiently large to permit of escape of pus by the bowel, and often of escape of fæces into the abscess cavity. A similar gangrenous condition of the intestine, with or without perforation, is sometimes present in the pelvic inflammatory troubles of women when the Fallopian tube effects adhesion by its fimbriated end to the sigmoid flexure or rectum, and may discharge its contents through this channel.

Another class of cases in which there is an analogous degenerated condition of intestine, and to which the following remarks with regard to treatment also apply, is found in intestinal obstruction, when the pressure upon the intestinal walls from within produces ulceration beginning in the mucous membrane and often extending through all the coats. Such ulceration has not, in my experience, been accompanied by the same amount of inflammatory infiltration and thickening of the diseased areas as occurs when the destructive process proceeds from without inward.

The condition of the patients in whom disease of this character occurs is generally such that they cannot withstand a prolonged or serious operation.

[1] Read before the Philadelphia County Medical Society, February 26, 1890.

Excision of the degenerated patches or resection of the intestine is in most cases out of the question. Evacuation of the abscess, removal of the exciting cause, and adjustment of the abdominal contents in positions most favorable for recovery, are the only steps to be considered. I will, therefore, leave all ideal surgical operations out of the discussion, and consider only those cases in which ideal surgery is impracticable. I will not discuss the best methods of removing the diseased portion of intestine, but the safest way in which it can be left in the abdomen. Such a discussion is of value because every surgeon must realize the impossibility of performing an ideal operation in many cases of abdominal surgery. Certain rules, theoretical or deduced from experiments on the healthy intestines of the lower animals, are laid down to be followed in the various abdominal operations on man, often without sufficient consideration of the pathological changes and distortions which may be caused by the disease that demands the operation. The determination of the extent to which one can go toward the ideal operation, without sacrificing any of the patient's chances of life to the surgeon's wish for mechanical perfection, distinguishes the true surgeon from the surgical mechanic. And to attain this end the surgeon must not only be familiar with the ideal operations possible in favorable cases, but also with the recuperative powers, and the best means to favor recuperation of diseased or injured structures in complicated cases where ideal surgery is impossible. In the disease, for instance, which is under consideration, the operator recognizes the danger of immediate, or not very remote, fæcal extravasation if the degenerative patches of intestine are not removed, or if the perforations or fistulous openings are not firmly closed, and yet he realizes that the patient may not withstand the ideal operations necessary for the accomplishment of this object. It is then that a knowledge of how much can be safely left untouched, and the best way of so leaving it, is most desirable.

When diseased intestine, such as we are considering, is left in the abdomen, our object should be:

1. To place it in a position which will tend most to favor its restoration to health.

2. To defer as long as possible the separation of the slough and the escape of fæces—if such an event is inevitable; or if a fistulous opening already exists, to defer the escape of fæces from this opening until preservative adhesions have taken place.

3. To place the intestine in a position most favorable for the spontaneous closure of a fistula, and most accessible for a subsequent operation.

4. To protect the sound peritoneum from infection from the diseased areas.

One of the most important points in the fulfilment of these indications is the adjustment of the diseased portion of intestine in a straight line, with the gangrenous patch facing the belly wall and in the immediate neighborhood of the abdominal incision. The straight position favors the easy passage of fæces past the gangrenous area, and it not only tends to prevent escape of fæces by reducing to a minimum the pressure from within, but it aids more than anything else the spontaneous closure of the fistula should one result. The easiest fistula to close is one situated on the side of a straight intestinal tube; the most difficult is one at the apex of a sharp flexure.

If the gangrenous spots face the abdominal wall the force of gravity will aid not only in preventing or delaying fæcal extravasation, but also in closing the fistulous opening. The value of gravity as an agent in the closure of a fistula is well illustrated by a case reported by Sir Henry Thompson, where an old urinary fistula which opened into the rectum was cured in a few weeks by making the patient pass his water while lying on his face. By placing the diseased portion of intestine near the abdominal incision we make it most accessible for drainage, we avoid the risk of a deep fistula, and we have it in a position easy for subsequent operation.

When fistulous openings exist in these gangrenous patches they are generally of small size; often so small that the escape of fæces and gas takes place only under pressure. In cases originating in pelvic or abdominal suppuration, the destruction of tissues proceeds from the outer to the inner coats of the intestine, and it generally happens that though pus may escape readily from the abscess into the bowel, yet the intestinal contents find a much less free exit on account of a valve-like closure of the opening. Some of these fistulous openings are so small that, existing as they do in the centre of a thickened diseased mass, they cease to be patulous when the intestine is freed from its adhesions, and are often not visible at the time of operation, their presence being proved only by the previous or subsequent history of the case. The firm closure of such fistulæ is impossible without excision of the whole gangrenous area and the coaptation of healthy tissues. None of the intestinal coats around the fistula will hold a suture of any degree of tension. The intestinal peritoneum cannot be dragged over the openings because it is rendered immovable by inflammatory adhesions, and is so friable that all sutures cut through. However, though these fistulæ cannot be firmly closed, yet the escape of fæces from them can be deferred for a considerable time. And this is especially true if the patient has been prepared for laparotomy by a thorough emptying of the intestinal tract. When the fistulous opening cannot be closed by sutures it may be covered by a large omental graft, extending around the intestine and reaching to the mesenteric attachment. Such a procedure

will delay, often for several days, the escape of fæces, and may result in cure without even the formation of a fistula.

There is a group of cases in which the gangrenous intestine and the fæcal fistula are situated in a position not accessible for operation. This occurs in cases of pelvic suppuration with the history of purulent discharge from the anus. The fistula exists in the rectum, or in the sigmoid, which is often as inaccessible for operation as the rectum on account of adhesion and contraction of the mesocolon. Under such circumstances all operations for closing the fistula are generally out of the question.

It is, however, fortunately situated in a position most favorable for spontaneous cure, being on the side of a straight portion of intestine, more or less immovable, and especially accessible to drainage and irrigation from above and to intestinal drainage and disinfection through the rectum. Indeed, in most cases small rectal fistulæ—if properly treated—in no way interfere with the patient's chances of recovery, even though left unclosed.

To insure the spontaneous cure of fistulæ it is important that there should be no obstruction in the distal portion of the intestine. All obstructing inflammatory tissue and bands of adhesion must be completely removed, and intestine adherent in sharp flexures must be straightened out. We thus obey a most important rule for the closure of all fistulæ, by rendering the natural passage-way the easier one.

Of course, in all cases of gangrene of the intestine drainage is of the greatest importance, especially drainage by means of large straight tubes whenever we fear escape of fæces. Care must be exercised in placing the drainage tubes, that they do not exert any lateral or vertical pressure upon the diseased portion of intestine, as sloughing has occurred from this cause even in healthy structures.

Before concluding I will report briefly three cases of gangrene of the intestine, in which ideal surgical operations were impracticable, and which were cured by treatment such as I have been considering.

CASE I. *Abdominal and pelvic abscess, gangrenous intestine, entero-vaginal fistula.*—C. G., twenty-one years old, had a history of syphilis of two years' duration. Abdominal section was performed for double hydrosalpinx, and at this operation the peritoneum and the intestines were found perfectly normal with the exception of some healthy pelvic adhesions. Eight days subsequently it was necessary to reopen the abdomen on account of symptoms of intestinal obstruction, and because it was discovered that a free discharge of fæces was taking place through the vagina. At the second operation the peritoneum was in the following condition: There was an abscess in the right inguinal region containing several ounces of pus. In immediate contact with this accumulation was a loop of small intestine eighteen inches long. The whole loop was thickened, stiff, and friable. On the convex surface were two black, necrotic patches two inches in diameter. A second collection of pus was found behind the left broad ligament. The sigmoid was in contact with this accumulation, and was firmly adherent to the posterior wall of the vagina. When separated from the vagina the bowel presented on its surface a necrotic patch one and one-half inches in diameter. The fistulous opening through which fæces had escaped into the vagina existed in the centre of this patch as there were no other portions of the intestine adherent to the vagina. The opening, however, was not patulous, and was obscured by the thickened diseased tissues around it.

As the patient was in a condition of collapse, with an almost imperceptible pulse of 160, no radical procedure like resection or excision could be performed. The gangrenous spots were, therefore, left untouched. The small intestine was placed transversely across the abdomen, immediately above the upper angle of the incision. The sigmoid was freed from all adhesions and straightened as much as possible, and the abdomen was drained by means of three tubes through which continued irrigation was conducted. The patient recovered perfectly without at any time having escape of fæces by any but the natural passage. This is especially remarkable because there was left unclosed a fistulous opening which had been large enough to permit the free escape of fæces into the vagina before operation.

CASE II. *Abdominal abscess, gangrenous intestine.*—A. H. had been suffering for several years with pelvic pain, and recently with acute abdominal trouble with great pain, chills, hectic, uncontrollable nausea, diarrhœa, very free discharge of pus and blood by the rectum, and rapidly increasing emaciation. At the time of operation the abdomen was distended and tender, with marked fulness and feeling of resistance, and dulness on percussion over the right side from the groin to above the umbilicus. Temperature 103°, and pulse 130. Median laparotomy was performed and almost a quart of feculent pus was evacuated from an abscess cavity in the right side of the abdomen, which extended from the floor of the pelvis to two inches above the umbilicus, and inward to the median line. At the bottom of this cavity was found a pyosalpinx, which had been the cause of the trouble. Though a large mass of intestine walled in this collection of pus, yet there was but one gangrenous spot discovered. It was on a loop of ileum and was about two inches in diameter. No fistula was detected, though it is probable that a small valvular opening existed in this spot, as there had been a free purulent discharge from the bowel before operation. As the removal of the necrotic patch was impossible without resection, it was covered by a large omental graft. The intestine was placed in a straight line transversely across the abdomen, with the gangrenous portion at the upper angle of the incision; and two glass drainage tubes were introduced, one to drain the healthy peritoneum and the other the site of the purulent accumulation.

Pulse after the operation was 160. On the fourth

day fæces escaped from the larger tube, viz., the one which drained the right inguinal region. The quantity increased daily until at the end of a week the total discharge of the bowel came through the abdominal incision. After this it gradually decreased, and six weeks after the operation the abdominal wound was firmly closed and all fæces passed *per anum*. The woman is now in good health.

CASE III. *Gonorrhœal pyosalpinx, with a fistulous opening into the rectum.*—A. F. had been suffering with pelvic pain for three years. For several weeks before operation she had been unable to stand erect, and had frequent discharges of small quantities of pus from the anus. After each discharge the pain was temporarily relieved. Abdominal section was performed and two pus tubes were removed. There was no abscess in the pelvis outside of the Fallopian tubes. The right tube was adherent by its fimbriated end, low down on the anterior surface of the rectum. The discharge of pus had taken place at this point. Fæcal odor was perceived after removal of the tubes and irrigation of the pelvis. There was, however, no escape of fæces until the gla-s drainage tube was introduced, when a small quantity of dry fæces was withdrawn through the tube by a syringe. The woman was unusually large and fat, and the fistula could not be brought into view, and was inaccessible for any attempt at closure. No such attempt was therefore made, reliance being placed altogether on the abdominal drainage tube, and on drainage through a glass tube inserted in the anus. I felt especially confident in leaving the fistula patulous, since the woman had been thoroughly purged for two days prior to the operation; and because it was in a position most favorable for spontaneous closure.

There was no discharge of fæces from the abdominal drainage tube until twenty-four hours after the operation, when the nurse, without direction, administered a turpentine enema, the result of which was intense pain throughout the lower half of the abdomen and the free escape of turpentine and water from the abdominal tube. For four days after this there was a feculent discharge from the abdomen, and on the fifth day a large quantity of flatus escaped through the abdominal tube while the rectal tube was removed for cleansing. The bowels were moved by glycerin enemata on the ninth day, everything coming by the natural passage. The patient was discharged cured four weeks after the operation.

I have reported these cases because they illustrate the pathological condition to which I wish to call attention, and because they show what can be done without resort to the most heroic surgical operations. In conclusion, I will repeat what seem to me to be the most important points in the treatment of such cases:

1. Free purgation of the patient before operation.
2. Complete removal of all obstructing causes below the gangrenous intestine.
3. The adjustment of the gangrenous intestine in a straight line.
4. Thorough drainage and irrigation of the peritoneum.

THE LEGAL ASPECTS OF VIVISECTION.

BY JAMES M. BECK,
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THE recent case of Commonwealth *vs.* Benjamin T. Shimwell, M.D., who was charged with cruelty to animals in vivisecting a dog for scientific purposes, is interesting, not only because it is believed to be the first case of its kind on either side of the Atlantic, but also as it illustrates the legal position taken by the Society for the Prevention of Cruelty to Animals with reference to vivisection. It may, therefore, serve as an apology for a short article upon the legal aspects of vivisection, although the writer must first disclaim any intention to discuss its propriety as a subject for legislation. The theme must simply be the application of the English common law, and of the general statutes prohibiting cruelty to animals, to vivisection.

Dr. Shimwell was arrested under the Act of March 29, 1869, which provides that if "any person wantonly or cruelly ill-treats, overloads, beats, or otherwise abuses any animal, whether belonging to himself or otherwise, shall be deemed guilty of a misdemeanor." The facts adduced at the hearing showed that in order to demonstrate to a class of students in the Medico-Chirurgical College of Philadelphia the value of Dr. Senn's new method of intestinal resection, and of some original and improved methods of performing it, Dr. Shimwell, after thoroughly etherizing a dog, operated upon it and kept it alive for a number of days, in order to note the succe-s or failure of the experiment. It was not disputed that, so far as the operation permitted, the same care was taken with the dog as with a human being, to spare it unnecessary pain and to save its life.

The Society, at whose instance the prosecution was commenced, did not dispute that if the operation had never been attempted, or its success demonstrated, the use of the animal in the interest of science was not cruelty under the Act quoted. Its contention, in the language of one of the witnesses (Dr. Wistar), was that "if the operation had been performed upon inferior animals, and demonstrated as being a possible operation from which they will recover, then the necessity for vivisection ceases." The Doctor did not think, on cross-examination, that vivisection was justifiable for the purpose either of class demonstration or to gain dexterity. In his judgment, the cadaver served the purpose equally well, and, when the witness was asked when research ceased to be original, he thought that if any physician of reputation published the success of a novel surgical operation, the profession was not only justified in accepting the theory, but was precluded from testing its merits by vivisectional experiments. This was the position assumed by the learned Doctor

and the attorney for the S. P. C. A. Of its scientific correctness the profession must judge. The writer will only discuss its legal merits.

We must first resort to that unwritten body of usages which forms the foundation of our law in England and America, known as the common law. It gave man an absolute and unlimited control over his personal property. It and the Mosaic law declared with equal emphasis that man had, by the gift of the Creator, "dominion over the fish of the sea and over the fowl of the air, and over every living thing that moveth upon the earth."

While any one who maimed an animal belonging to another could be indicted at common law for *malicious mischief*, the gravamen of the charge was the invasion of the owner's right of property, and not the cruelty to the animal, for the animal having no rights at law, none could be invaded. Therefore, as a man could cut down his own tree, at such time and in such manner as it pleased him, without reference to his motive or wisdom in so doing, so he could maim or kill his animal for any purpose whatever. Like the good man of the house, he would say: "Can I not do as I will with mine own?" Therefore, the slaughter of animals for food, for clothing, for sport, or for any other purpose, was recognized and upheld.

Then Mr. Bishop, in his very able treatise on criminal law, says: "The common law recognizes as indictable no wrong, and punishes no act of cruelty, which they (the lower animals) may suffer, however wanton and unnecessary." The apparent exceptions to the rule have arisen in which the cruelty was either so public as to amount to a nuisance, or immoral in its tendency. In these cases it is not the brute whose rights are infringed, but the public, whose quiet and well-being are attacked.

In State of New Jersey *vs.* Beekman (3 Dutcher, 124), the defendant was indicted at common law for wounding a cow, the property of another. It was held, on an elaborate opinion by the Chief Justice, that no such offence existed at common law, and the prisoner was discharged. A number of English cases, stating the same doctrine, are referred to in vol. 2 of East's *Pleas of the Crown.* Indeed, the judges who declared the law, with the wool of sheep upon their backs, and (if we are to believe the great poet) their bellies "with good capon lined," could not well have stated it otherwise.

The importance of this consists in the fact that the anti-vivisectionists, in order to interfere with the rights of property at common law, and the individual's personal liberties, must show an express legislative enactment, and such enactment, being in derogation of the common law, and in this case criminal, will be construed strictly against the prosecution and in favor of the liberty of the subject.

The first English statute "to prevent the cruel and improper treatment of cattle," was passed in 1822, and "punishes any one who wantonly and cruelly beats, abuses, or illtreats any horse, mare . . . . or other cattle." This and the subsequent English statutes are so similar in form and language to the Pennsylvania statute above quoted, that their full recital is unnecessary, except to add that English legislation so fully recognized the inapplicability of them and of the common law to vivisection, that a special statute was in recent years passed, in a temporary aberration of the legislative mind, to prohibit it.

A brief reference to the decisions on these and similar statutes will show that a uniform principle runs through them all. They were not intended to make animals less serviceable to man, nor to abridge his right to beat or kill them for proper purposes. Pain or death inflicted upon the animal is only illegal when cruel, and cruelty has been defined by the Lord Chief Justice of England as meaning "cruelty without reason, cruelty in making one of the lower animals suffer without any reasonable object or to an unreasonable extent." As there must always be, to secure a criminal conviction, a criminal intent, it necessarily follows that when pain or death is inflicted upon an animal, not in a wanton spirit to inflict pain, but in good faith for the benefit of man, there can be no conviction. It may well be that the use designed may not be a useful one, but if the owner in good faith believes it to be, he is protected. It is the wanton or wilful cruelty that is alone punishable. Thus Judge Hoar, in a Massachusetts case, in which a man was arrested for cruelty to a horse, says: "It certainly is not true as an abstract proposition that it is immaterial what may be the motive of a person who inflicts pain upon an animal. Pain inflicted for a lawful purpose and with a justifiable intent, though severe, does not come within the statute meaning of cruelty.

"Thus *a surgical operation.* occasioning the most intense pain, may be justifiable, and is not criminal. To drive a horse at a rate of speed distressing to the brute, *when the object is to save human life*, or to attain any other object of adequate importance, may be lawful." (Commonwealth *vs.* Lupkin, 7 Allen, 579.) In the case of State of New Hampshire *vs.* Avery (44 N. H. 396), where a man was charged with cruelty in beating a horse, and the defence was that the beating was in the course of training, Judge Bellows said: "If it (the alleged cruelty) was resorted to in good faith, and for a proper purpose, it will not be necessarily malicious." In a New York case, where a dog was used in a treadmill, and this was contended to be an improper use, Judge Davis said: "Although a dog is not a beast of burden, yet it is not cruelty to train and subject him to any

useful purpose. His use in any mode by which his strength and docility may be made serviceable to man is commendable, and not criminal."

A reference to the English cases shows that a similar principle prevails in Great Britain, notwithstanding that Parliament has declared against the practice of vivisection. In the case of Murphy *vs.* Manning (2 Exch. Div., L. R. 307) defendant was arraigned for cutting the combs of cocks in order to fit them for cock-fighting. He was adjudged guilty on the express ground that cock-fighting was illegal, and that therefore the pain was inflicted for an unlawful purpose. Judge Kelly said, in delivering the opinion of the Court: "There are some acts which are cruel (*i. e.*, painful) in the extreme, and no legislation can make them otherwise, yet they are perfectly lawful, and not within the Act because they are done for some lawful purpose. . . . As it (cock-fighting) does not better fit the animal for the use of man, or for any other lawful or proper purpose, it is wholly unjustifiable."

The case of Lewis *vs.* Fermor (18 L. R., Q. B. D. 532) is a strong case against the anti-vivisectionists. In this case certain sows were spayed—that is, the uterus and ovaries were removed, because the flesh of the animal deteriorated in its periods of heat. No anæsthetic was used, and the operation caused pain. The object desired was an increased pecuniary profit, and the end desired was not strictly necessary, as it was admitted that the same end could be attained by killing the animal when not in heat. The defence was that the operation was not wanton, but done in good faith. Said Judge Day: "It seems to me that cruelty means the infliction of grievous pain without a legitimate object, either existing in truth or *honestly believed in.*" Said Judge Wills: "The Act should receive a fair and reasonable construction so as not to bring within the criminal law people who act honestly and without any evil mind or motive. . . . I think there must be something of a moral element of cruelty to bring the case within the section. The question is, whether the act was done for a lawful purpose, and not whether, in point of fact, in the opinion of the tribunal that has had to adjudicate, the practice is a good one. . . . In my opinion, if a person who performs the operation entertains an honest belief that what is done will benefit the animal, he is not liable to be convicted."

The belief may sometimes be erroneous, but we must be careful that we do not try to teach new, though perhaps improved, views on matters within the area of fair scientific discussion, by means of the criminal law. The question has chiefly arisen in a number of cases in which cattle were dishorned. In these cases it appeared that the operation caused intense pain, that it was only practised in certain parts of England and Ireland, and that tipping the horns would accomplish the same result—*i. e.*, the prevention of goring—without the infliction of pain. On the contrary, it was shown that the operation made the animals more docile, and cost the owners less to stall, and enhanced their value. Under these facts, the Scotch courts (15 *Judiciary Cases*, 84) held the practice not to be cruelty within a similar Act, and justifiable under the circumstances. The Irish courts, in Callaghan *vs.* S. P. C. A. (16 L. R. (Ir.), 325) reached the same conclusion. In the former case Lord Young said that the statute must not be construed to "interfere with the judgment of those who are pursuing their own affairs to the best of their judgment, however much they may be mistaken in the judgment of others." In the Irish case, Morris, C. J., said: "Looking at the suffering in reference to the object with which it is inflicted, it cannot in my mind be considered as unnecessary, for the object is reasonable and adequate."

The same practice came before the Judges of the English Queen's Bench Division, and they, in the very latest case, dissented from the Scotch and Irish courts upon the facts, but Lord Chief Justice Coleridge says: "Necessity, to form an excuse under the statute, does not mean simply that the effect of an operation cannot be otherwise secured. *There must be a proportion between the object and the means.* Mutilation of horses and bulls is necessary, and undoubtedly lawful." Said Judge Hawkins: "The beneficial or useful end sought to be attained must be reasonably proportionate to the extent of the suffering caused."

Applying the principle of these cases to vivisection, it may be safely affirmed that the distinction sought to be made in the Shimwell case between original research and class demonstration is untenable. If vivisection substantially adds to the ever-growing fund of human knowledge (and who can question it?), or if it enables the professor to demonstrate more thoroughly the value or danger of particular operations to his class, or if the practitioner substantially adds to his dexterity and skill by its use, it is on either of these grounds, legally justifiable, and is not "cruelty" in the legal meaning of the word. If, to add to the pecuniary value of sows and other cattle, it be justifiable to mutilate them, how unjustifiable is a prosecution that seeks to bring within the pale of the criminal law a scientist who for the good of his fellow-men, and with every precaution to spare the animal unnecessary pain, sacrificed it upon the high altar of science?

The Royal Ophthalmologist.—The ophthalmologist, Prince Carl Theodor, of Bavaria, proposes to establish an eye clinic near Munich, similar to that which he has conducted at Tegernsee, and the hospital at Schwabing will afford all the accommodation required at the outset.

CLINICAL MEMORANDA.

THERAPEUTICAL.

Cod-liver Oil Emulsion.—Cod-liver oil emulsions, in various forms, are preparations which have of late become somewhat popular. I express no opinion whatever on any of these preparations, far less do I intend to individualize any preparation by attempting to give a copy of the formula. I simply recognize the unfortunate necessity which sometimes arises of following where our inclination does not lead, and I therefore give a formula for an emulsion, believing it, without prejudice, equal to any of the many now before the profession and the public.

Of all the excipients suggested by different authorities as well as commending themselves to one's own approval for emulsifying cod-liver oil, none, I think, equals gum tragacanth. Without, therefore, ignoring other substances, such as mucilage of gum arabic, white of egg, alkaline solutions, and so on, I have principally endeavored to ascertain the conditions most favorable to produce with tragacanth an inseparable emulsion, which, at the same time, would be miscible with water, contain a reasonable amount of oil, and be not particularly objectionable in appearance, taste, or smell. Of course, in all these preparations, much may be left to individual fancy as to combination; and I, therefore, make no suggestion as to all the different ingredients which may be added, further than this, that if oil of bitter almond be the flavoring agent used, both experience and experiment have determined that a half per cent., or about two drops to each ounce of cod-liver oil, is the proper proportion; and that of the two oils, namely, an oil deprived of its hydrocyanic acid, or an oil containing it, the latter is preferable.

As to the emulsion, let three drachms of the finest white powdered tragacanth be rubbed up in a large mortar with three ounces of glycerin, to this add as much boiling water as will convert it into a thick, transparent jelly, from eight to ten ounces probably being required. After cooling add the cod-liver oil, which should first be mixed either with plain water or lime-water, in the proportion of one of the latter to three of the oil; or, if the emulsion is intended to contain the hypophosphites of lime or soda, let these be added to the plain water previous to mixing with the oil, and then let this primary emulsion be gradually added to the mucilage of tragacanth with constant stirring. In the process of mixing, the emulsion not only creams but also thickens up to a certain point; the individual taste must settle the extent to which the mixture may be carried. I have found the three drachms of tragacanth emulsify from fifty to eighty ounces of what I have called the primary emulsion, the former quantity being very thick and not easily poured from the mortar, the latter quantity flowing more freely and forming what I consider the better emulsion. In mixing the oil with the mucilage of tragacanth, care must be taken not to add it too hurriedly, else it will not emulsify; the mixture will simply break up into a clotted mass, and no amount of labor, apparently, will bring it back to the emulsified form. Under these circumstances, the better way is at once to begin again with a small quantity of fresh mucilage, to which the clotted mass should be carefully added by degrees. In this way only can the emulsion be brought back to its proper form.

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HOSPITAL NOTES.

PRURIGO. ECZEMA RUBRUM. MOLLUSCUM CONTAGIOSUM.

Abstract of a Clinical Lecture
Delivered at the New York Post-Graduate Medical School.

BY ROBERT W. TAYLOR, M.D.,
PROFESSOR OF DERMATOLOGY.

DR. TAYLOR said that he intended to present to the class a typical example of a disease which has not been very well understood in this country, where it hitherto has been looked upon as a great rarity. It is all-important to be familiar with it, as the general practitioner is much more liable than the dermatologist to meet with it, particularly in the early stages. In this country we have been so sceptical about it that undoubtedly cases have been observed which were erroneously considered as eczema, ecthyma, urticaria, or impetigo. The disease under consideration is known as the prurigo of Hebra. It was first described by Willan as prurigo, and his description was elaborated by Hebra, who gave an unexcelled clinical history of a more exaggerated form of the disease. In this lecture we shall consider the two diseases—the prurigo mitis of Willan, and the prurigo ferox of Hebra.

During more than twenty years, cases of the so-called prurigo of Hebra have been presented to the New York Dermatological Society; but the members of that body had such an abiding impression that the disease was exceedingly rare, that they received these cases with derision, and the men who presented them, not feeling positive of their diagnosis, have not been bold enough to withstand this opposition. It must be remembered, also, that as these cases were seen at night, many of the papules and other lesions may have been unnoticed.

At a meeting of the American Dermatological Association, in Boston, last September, a very intelligent dermatologist of Chicago, Dr. Zeisler, read a paper, in which he asserted that he had seen quite a number of cases—at least twelve—of this disease. The members marvelled that this young man should have seen in a few years so many cases—almost as many as all the other American dermatologists combined had seen. It so happened that Drs. Bowen and Tilden, of Boston, also presented a good case of prurigo. After thinking over the matter, Dr. Taylor had recalled three cases which he had seen—two in children, and one in a man—and the other members in like manner were able to recall a few examples of this disease.

The disease is not infrequent in Europe, but here it has been considered exceedingly uncommon. A careful examination of the literature of this subject would probably show that not more than fifty cases had been observed up to the present time in America.

CASE I.—Dr. Taylor then presented an eight-year-old girl, who is said to have had prurigo for four years. It is highly probable that she has had it much longer, and that, owing to its insidious onset, it had not been noticed.

The disease is never congenital, but commonly begins before the patient reaches the age of two years. According to Hebra, it is a disease which ceases only with death, and his writings lead us to suppose that many of the older subjects, made desperate by their prolonged suffering, are driven to suicide.

When the eruption began in this child, it was thought to be only mosquito-bites. This is the usual story; thus the patients are either thought to suffer from insect bites or urticaria, and the family physician, ignorant of the serious nature of the disease, usually agrees with the parents as to the insignificant character of the eruption.

Some cases appear to be in their usual health, but many are evidently anæmic, or become so with the progress of the disease. The amount of anæmia or cachexia will usually be proportionate to the extent and intensity of the pruriginous disease, and also to the social conditions of the patients, who usually belong to the poorer class.

So far, this patient has not suffered very much, for we are told that she does not scratch very much, except at night. This case is no exception to the rule that when the patient is much out-of-doors, and perspiring freely, as in summer, the disease is temporarily held in abeyance. Crocker, of London, noticed that the disease was better in winter than in summer; but his experience is opposed to that of every other dermatologist.

The child's face presents an admirable picture of the prurigo. The pale facies is characteristic; some of the papules are whiter than the skin; others are yellowish, and they vary in size from a small to a large pin's head. The papules are conical, and the eruption shows one feature which Hebra insisted upon—*i. e.*, that the head and nucha are not involved, but the papules begin to develop where the shoulders merge into the neck. The dried blood-crusts on the apices of some of these papules show that they have been scratched fiercely. These patients usually scratch the scalp a good deal, and the hair becomes dry and rough, but not very scurfy. The eruption extends from the roots of the fingers to the elbow, and the disease has been localized for a number of years upon the extensor surface of the forearm, entirely sparing the bend of the elbow, and is now throwing out a number of scattered papules on the flexor surface, and spreading upon the arm by the same mode of development and distribution of these lesions. The papules are abundant on the forearms, scattered without order, and are not grouped in any way. The disease has skipped from the shoulders to the buttocks, where the papules are more sparsely distributed; and the scratch-marks and blood-crusts on these regions tell the story of vigorous scratching. The eruption is not present in the popliteal region, but on the outer and posterior portion of the leg one finds some whitish, conical, and crust-covered papules. The papules here are seen to be quite large, owing to the hyperæmia and cell increase which result from the scratching. Ordinarily, the papules, as stated, vary in size from that of a hemp-seed to that of the head of a large pin. The thighs are entirely free from the disease.

The glands in the neck are very much enlarged, and the epitrochlear and inguinal are also increased in size, but to a less extent. The amount of adenopathy is usually in proportion to the duration, extent, and severity of the disease; so that when the patient reaches the age of puberty, these glands, particularly in the groin and over Scarpa's triangle, are hard and nodular, and may be as large as one's fist.

The primary lesion in this disease is an effusion of serum and leucocytes, from the upper layer of vesicles, into the substance of the papillæ; and the papules, although not so superficial, resemble vesicles in thus containing serum, which, however, is present rather low down in the corium. The effusion of serum is the result of an inflammatory process, which gives rise to hyperplasia of the papillary body, thickening of the whole epidermal structure, and of the rete, with pigmentation of the latter. The case before the class shows this yellowish brown pigmentation on the hands, as a result of the hyperæmia produced by scratching; and if the disease be not arrested, the deposit of pigment will continue until the skin will become as dark as that of a mulatto. As another result of the inflammatory process and of scratching, one will notice an entire absence of lanugo on the back of the hand; and also that the natural furrows of the skin are greatly enlarged, as is best shown about the wrists of this patient.

Sometimes the papules are not visible, but by passing the finger with firm pressure over the skin, one can readily detect the peculiar shot-like feeling of the skin.

So far, there have been presented the clinical features of a typical and uncomplicated case of prurigo. But the disease is often complicated, and in a measure masked by urticaria, eczema, or by the occurrence of furuncles, ecthymatous pustules and ulcers, or by an impetiginous condition. In such cases inquire into the early history, and remember that prurigo begins, when the child is young, with so-called flea-bites upon the extremities, and that it is attended with great itching, usually from the beginning.

It is probable that in very many cases prurigo begins as an urticaria, which is the outward and visible sign of dyspepsia; and the gastro-intestinal troubles are the cause of the urticaria or papular erythema, which is, in turn, the starting-point of the prurigo.

Treatment.—This naturally leads to the question of prophylaxis, and enforces the practical deduction that great attention must be given to the diet of the children who are the subjects of recurrent urticarial or papulo-erythematous eruptions. All causes of gastro-intestinal irritation must be removed on account of the powerful influence which they exert, by reflex action, upon the skin in the production of inflammation. Having secured a healthy condition of the digestive tract, the next thing is to see that nothing irritating comes against the skin. This child has on merino underwear, which is very good; but the rough stockings are very bad. No flannel should come in contact with the skin. Apply dusting powder to all chafes, and avoid the use of too much bed-clothing. Quinine and arsenic have proved ineffective; cod-liver oil is useful in most cases where it is well borne by the stomach; in the present instance it would be well to give two or three grains of the ammonio-citrate of iron three times a day. Quinine should be carefully avoided in prurigo, since it often causes congestion and irritation of the skin and an exaggeration of the pruriginous eruption.

The best local treatment consists in the use of warm alkaline baths (90° to 96°), followed by an inunction

with 5 per cent. carbolized vaseline. The next day, it is a good plan to make use of inunctions with vaseline, sweet or almond oil, applied three times a day, with a view of preventing the dryness of the skin so common in these cases. The various antiparasiticides—*e. g.*, the tars, carbolic acid, cocaine muriate, peppermint, camphor, etc., may be employed, and Kaposi considers naphthol very valuable; but Dr. Taylor thinks the alkaline baths and inunctions are more beneficial.

CASE II.—The next case was a baby four months old with eczema rubrum of the face. It began as a small spot on the ear, which was washed and irritated until this eruption developed, which involves the forehead and both cheeks, resembling a mask. The patient presents a typical picture of that form of scaly eczema which Unna calls seborrheic eczema. The eruption develops anywhere where there is pressure, moisture, or irritation, as on the nates and in the popliteal spaces. The impress made upon the system by this original eczema constitutes a morbid tendency in the skin itself. It is not, as the older writers used to consider, due to a diathesis. Debilitated children are more liable to inflammatory processes, and some children have more delicate skins than others. The child's skin is very susceptible to inflammation, for it is soft and succulent, and contains young cells undergoing very rapid growth, and peculiarly prone to inflammation.

Treatment.—Stop the washing, and remove all other sources of irritation. If the adjacent parts must be washed, let it be done with a lotion consisting of one part of bay rum to four parts of water, lightly sopped on the affected parts. Internal medication may be required, but external treatment is usually competent to effect a rapid cure. For the patches on the face and arm, nothing is better than the following, which is to be smeared over the face, and will remain on the parts like a paste:

℞.—Camphor . . . . 15 grains.
Calomel . . . . ½ drachm.
Starch } . . of each 2 drachms.
Zinc oxide }
Vaseline . . . . ½ ounce.—M.

Never use this paste or the oxide of zinc ointment upon the scalp or palms, for it is too drying. In all these cases it is well to give, every three or four days, a powder containing one or two grains of calomel, and to avoid all sources of gastro-intestinal irritation.

CASE III.—The next patient was a child four and a half years of age, who has had an eruption for the last two months about the eyes and neck. It consists of little yellowish and pinkish sessile and pedunculated tumors, scattered over the upper eyelid and near the canthus on the right side, on both the left eyelids, and of two larger isolated tumors on the chin and over the notch of the sternum respectively. This disease is variously designated as molluscum contagiosum, molluscum epitheliale, molluscum simplex, and molluscum sebaceum. There is still a want of unanimity of opinion as to the structure of these little tumors, some thinking they are connected with the sebaceous glands, while others say they have no connection whatever with these glands, but are formed from the cells of the rete. The question of the contagiousness of this disease is still in dispute, although a case was recently reported in France, in which material was said to have been rubbed from one child to another, causing the disease; but the volume of testimony is against its being contagious, and conflicting testimony may be explained by insufficient and incorrect observation, or by coincidences.

The disease is most commonly found in young children, but it is also met on the penis, scrotum, and female breasts and external genitals of adults.

Treatment.—The smaller tumors can be readily destroyed by the electrolytic needle; while larger ones should be bisected, their contents squeezed out, all ragged tissue cut away, and antiseptic healing promoted by dusting the surface with iodoform or boric acid. In certain localities they may be snipped off with scissors or ligated. In this case chloroform or ether narcosis would be necessary before the removal of the tumors about the eye could be attempted.

In some cases the disease is very extensive; Dr. Taylor said that he had a photograph of a child on whom were between two and three thousand of these little growths.

If left alone they wither and form small tumors called nævus mollusciformis.

MEDICAL PROGRESS.

Diet in Diseases of the Kidney.—DUJARDIN-BEAUMETZ assumes that in disease of the kidney with insufficient secretion of urine it is of primary importance to prevent the formation of toxic ptomaines in the digestive tract. This is attained by the administration of intestinal antiseptics, such as naphthalin and the salicin compounds, and a carefully regulated diet. The flesh of animals and fish, particularly if not fresh, always contain ptomaines, and hence should be interdicted, or, if used at all, must be absolutely fresh and thoroughly cooked. For the same reason old cheese should not be taken. The nourishment should consist chiefly of hard-boiled eggs and such vegetables as beans, peas, lentils, and potatoes, which may be made into a thick soup. Green vegetables may be used and also mush made from corn, barley, or oats. Fruit may be eaten freely. The drink should consist of milk or light beer. White wine well diluted with water may be occasionally used.—*Prager medizinische Wochenschrift*, February 19, 1890.

Prescription for Chronic Rheumatism.—The *Kansas City Medical Index* quotes the following as a favorite prescription of the late Dr. Fothergill for chronic rheumatism:

℞.—Arsenious acid. . . . 3 grains.
Pulverized guaiac . . . 3 drachms.
" capsicum . . ½ drachm.
Pill of aloes and asafœtida . 3 drachms.

Mix and divide into 120 pills, of which one should be taken three times daily.

Hypodermic Injections of Thymolate of Mercury in Syphilis. The excellent effects obtained by Jadassohn and Zeising in the treatment of syphilis by subcutaneous injections of the thymolate and the salicylate of mercury are confirmed by WELANDER (*Centralblatt für klinische Medi-*

cine, February 22, 1890) who has made a number of injections with the acid thymolate (one part in ten parts of liquid paraffin). The pain of the injections is trifling, but more or less infiltration usually occurs at the seat of injection. In one case a trace of albumen was found in the urine during treatment. In all cases mercury was found in the urine, its first appearance varying from two hours to several days after the first injection. Mercury continues to appear in the urine for some days; in one case it was found one hundred days after the last injection. Welander prefers the thymolate to the salicylate, as in his experience it causes less pain and infiltration than the latter.

New Operation for the Radical Cure of Hernia.—DR. WILLIAM S. HALSTEAD, of Baltimore, has recently reported in the *Johns Hopkins Hospital Bulletin* five cases of hernia treated by the following method:

1. The incision begins at the external abdominal ring, and ends one inch (less than one inch in children) to the inner side of the anterior spine of the ilium on an imaginary line drawn through the anterior superior spines of the ilia. Throughout the entire length of the incision everything superficial to the peritoneum is cut through.

2. The vas deferens, with its vessels, is carefully isolated up to the outer termination of the incision, and held aside.

3. The sac is opened and dissected from the tissues which envelop it.

4. The abdominal cavity is closed by quilted sutures passed through the peritoneum one and one-half to two inches above the so-called neck of the sac.

5. The vas deferens and its vessels are transplanted to the upper angle of the wound.

6. Interrupted, strong silk sutures, passed so as to include everything between the skin and the peritoneum, are used to close the deeper portion of the wound, which is sewed from the crest of the pubes to the upper outer angle of the incision. The cord now lies superficial to these sutures and emerges through the abdominal muscles about one inch to the inner side of the anterior superior spine of the ilium.

7. The skin is united over the cord by interrupted stitches of very fine silk. These stitches do not perforate the skin, and when tied they become buried. They are inserted in the under side of the skin, and made to include only the deeper layers—the layers which are not occupied by sebaceous follicles. Thus infection of the sutures from organisms which may be present in the follicles is avoided.

8. One or two small, short gauze plugs are used as wound drains.

The immediate result in all the cases reported was good. Three of the patients were children, two adults. Sufficient time has not yet elapsed to test the ultimate results.—*Annals of Surgery*, March, 1890.

The Treatment of Acne.—In a recent lecture on acne, DR. J. FRANK PAYNE (*Lancet*, February 15, 1890) gave the following advice upon the treatment of the disease: Patients should be told to wash the parts at night with hot water and strong soap—soft-soap in small quantities if the skin is thickened. Friction with a towel should follow the washing. If the comedones are abundant and not removed by the washing and friction, they may be squeezed out with a suitable instrument. Washing should precede the expression, and a lotion should be applied immediately afterward. In acne vulgaris this should be supplemented by certain drugs, of which sulphur is the most useful. Absolutely dry sulphur does not affect the tissues at all, and it is most efficacious when combined with an alkali. An excellent alkaline sulphur lotion is as follows:

℞.—Precipitated sulphur . . . 15 grains.
Glycerin . . . . . ½ drachm.
Spirit of camphor . . . 5 minims.
Lime-water . . . . 1 ounce.—M.

For some skins the lime-water is too strong, and the mixture may be diluted with rose-water. This should be applied at night with a soft sponge or pledget of cotton, allowed to dry, and washed off in the morning. The usual sulphur ointments are too strong; 15 grains of sulphur to an ounce of soft paraffin or benzoated lard, to which may be added 10 minims of carbolic acid, is of the proper strength and forms a useful application. To make this alkaline, 15 grains of potassium carbonate may be added.

This treatment, though it may not entirely remove the disease in young persons, will cure the attacks as they recur. Another excellent application is the following:

℞.—Corrosive sublimate . . . ½ grain.
Emulsion of almond oil . . . 1 ounce.—M.

Lead or zinc mixtures may be used, if there is much inflammation, but it should not be forgotten that the lead salts turn black in the presence of gases containing sulphur. Bismuth subnitrate may be used according to the following formula:

℞.—Bismuth subnitrate . . . 20 grains.
Glycerin . . . . . 1 drachm.
Rose-water . . . . 1 ounce.—M.

Or, the bismuth may be replaced by the same amount of zinc oxide.

In the internal treatment we must be guided by the condition of the patient. Beer and alcoholic drinks should be avoided, and the patient should be kept upon a laxative regimen. The administration of magnesia, in the form of purgative waters, and sulphur, has an excellent effect. In some a change of diet alone is sufficient to cure the acne. If anæmia or other diseased conditions exist, they must be treated on general principles.

Treatment of Foreign Bodies in the Larynx and Trachea.—In a recent monograph upon foreign bodies in the air-passages, by DR. MOURE, of Paris, the following advice is given: Do not use emetics; they do more harm than good, favoring deeper penetration of the body, impaction in the larynx, and sudden suffocation. Hard and heavy bodies may often be displaced by inversion, especially under chloroform, which relaxes glottic spasm. No attempts at removal should be blindly made with forceps; the gravest consequences often follow such procedures. If it is decided to open the larynx, tracheotomy should be previously done. If the body is situated in the trachea or bronchi, deep tracheotomy is necessary, proceeding

slowly and exposing a large part of the trachea. If the object cannot be extracted during the operation, the tracheal wound should be left open and subsequently attempts at spontaneous expulsion be excited, or the patient be inverted.—*Journal of Laryngology and Rhinology*, February, 1890.

Antiseptic Tooth Wash.—The following prescription for an antiseptic mouth wash is quoted in the *Therapeutische Monatshefte*, February, 1890:

℞.—Saccharin	15 grains.
Sodium bicarbonate . . .	8 "
Alcohol	3 ounces.
Oil of peppermint . . .	2 drops.—M.

One teaspoonful in a small glass of water.

The Dose of Antifebrin.—In a paper upon antifebrin (*Prager medicinische Wochenschrift*, No. 48, 1889) DR. STEIN writes that though he uses antifebrin as an antipyretic frequently, he has seen in aged and weak persons doses of eight grains produce disagreeable symptoms of cerebral excitation and even hallucinations. He advises with such patients a beginning dose of one and one-half grains.—*Schmidt's Jahrbücher*, January, 1890.

Antiseptic Treatment of Gastro-enteritis.—A writer in the *Revue Générale de Clinique et de Thérapeutique*, January 23, 1890, advises creolin in the treatment of gastro-enteritis, and prescribes it as follows:

℞.—Creolin	8 minims.
Pulverized sugar . . .	75 grains.

Mix, and divide into ten powders, one of which may be given every two or three hours.
Or,

℞.—Creolin	1 to 2 drops.
Syrup	1 ounce.
Peppermint water . .	2 ounces.—M.

Of this a teaspoonful may be given every one or two hours.

Asepsis of the lower bowel may be secured by enemata of one ounce of sodium benzoate in one quart of water; boric acid one to five drachms, sodium salicylate in the same quantities, or resorcin seven grains in a quart of water. Enemata of equal parts of lime-water and distilled water may be used for the same purpose.

The Resuscitation of Asphyxiated Infants.—DR. ALEXANDER DUKE practises the following method of resuscitating asphyxiated infants whose hearts have not ceased to beat:

If the cord is pulsating strongly, he does not cut it at once, but waits for a few minutes, until the pulsation has almost entirely ceased. He then raises the flaccid body of the child, and, turning it face downward, supports the chest with his left hand, and at intervals of five seconds compresses the thorax with the same hand. With the right hand he carefully wipes all mucus out of the mouth and throat of the child, which process is assisted by the position of the infant. If cardiac action becomes weaker, the child is plunged into a large basin of hot water, at the same time rubbing the back and chest vigorously. The friction over the spine is particularly serviceable as a respiratory stimulant. In a few instances he has found it of advantage to suspend the child by the legs, with the back close to a fire.—*London Medical Recorder*, January, 1890.

The Treatment of Sciatica.—DR. R. M. SIMON writes in the *Birmingham Medical Review* that it is essential in every case of sciatica to order absolute rest of the limb. Most cases, if treated thus and with the addition of hot poultices over the affected nerve, will soon recover. In the gouty diathesis it is advisable to prescribe saline purgatives with potassium iodide and antifebrin. Hypodermic injections of morphine or cocaine will give temporary relief, but are not curative. Galvanism may be used while the pain exists, and the best method is that of Stevenson, who applies a positive pole of metal covered with wet chamois skin, and gently passes a carbon disk negative electrode up and down over the course of the sciatic nerve.

It is not unreasonable to suppose that much of the acute pain of sciatica is due to the pressure of increased fluid within the nerve-sheath, and this hypothesis offers an explanation of the good results which often follow acupuncture, leeching, or massage.

Nerve-stretching should be employed only as a *dernier ressort*.—*Medical Chronicle*, January, 1890.

The Parenchymatous Injection of Creasote in Phthisis.—DR. ANDRESEN, of Jalta, reports his results in the treatment of phthisis by the parenchymatous injection of creasote (*Internationale klinische Rundschau*, February 9, 1890). The injections, sixty in all, were made upon six patients in an advanced stage of the disease. In two patients the injections were immediately followed by slight hæmoptysis, which, however, soon ceased without special treatment. No influence on the fever could be detected in these cases. In one case the cough always became worse for a few hours after the injections. In another case the cough ceased for several hours after injection, then dyspnœa appeared, and the cough became more severe. In a fifth case night-sweats, which had been profuse, were checked for two days. This was observed in this patient on three occasions. A sixth patient suffered from very violent cough and high fever, and there were cavities in each lung. Here the first four injections caused a positive improvement in the symptoms, but later the treatment was without effect.

In Andresen's cases injection into cavities caused an immediate spasmodic cough, burning in the throat, and a strong odor of creasote in the breath, symptoms which were very distressing to some patients. The operation causes but little pain, particularly if practised on the back. Anteriorly in the second intercostal space it causes slight pain lasting a few hours. The amount of creasote used at each injection is not made apparent by the author.

Cocaine Anæsthesia in Litholapaxy.—FREUDENBERG employs cocaine in large amounts as an anæsthetic in litholapaxy. At first he used fifteen grains for an operation, but found it insufficient, and now uses much larger quantities. In but one of his cases was cocaine intoxication observed. The procedure is carried out as follows: The bladder is first thoroughly irrigated with a boric acid

solution. Then about six drachms of a six, eight, or ten per cent. solution of cocaine is injected directly into the bladder through a soft catheter. The catheter is then partly withdrawn, and an equal amount of the solution is injected through the prostatic urethra into the bladder. Following this the catheter is still further withdrawn, until the eye is in the anterior urethra, which is filled with about one drachm of the solution, the meatus being closed with the fingers. In six or eight minutes the bladder is distended with about five ounces of boric acid solution, and the operation begun.—*Centralblatt für Chirurgie*, February 8, 1890.

The Treatment of Acute Coryza.—DR. C. H. STOWELL advises the following treatment for ordinary acute colds: If the patient is seen early, he should at once have a hot foot-bath and a bowl of hot lemonade. He should then be put to bed and covered with blankets until copious perspiration is produced. If seen at a later stage, the tincture of aconite should be given in half-drop doses for a few hours or until its physiological action is apparent. If the discharge from the nose is thin, or if the throat is involved, small and frequent doses of the tincture of belladonna will give marked relief. A brisk cathartic is often indicated, and generally desirable. Associated with this general treatment in the early stage, the nasal cavities should be sprayed with the following solution:

℞.—Cocaine hydrochlorate . 4½ grains.
Antipyrin . . . . 18 "
Sodium bicarbonate . . 5 "
Water . . . . 1 ounce.—M.

The spray should be repeated as often as the nares become occluded. If nasal symptoms remain after twenty-four or thirty-six hours, it is better to substitute a spray with an oil for a base, thus:

℞.—Cocaine hydrochlorate . 9 grains.
Water . . . . ½ drachm.
Dissolve, and add:
Fluid cosmoline . . . 1 ounce.
Oil of eucalyptus . . . 6 drops.
Oil of gaultheria . . 3 "

This spray may be used morning and night until the acute catarrhal symptoms have disappeared. The following powder may be used in place of either of the above solutions:

℞.—Sodium bicarbonate . . 2 grains.
Magnesium carbonate . 3 "
Menthol . . . . 1 grain.
Cocaine hydrochlorate . 4 grains.
Milk sugar . . . . 1½ drachms.—M.

To be used as a snuff.—*New York Medical Journal*, March 1, 1890.

Balanitis from Applications of Calomel.—M. CORDIER calls attention to a fact which has long since been known, that when tincture of iodine, or iodine ointment, is applied to a surface which has previously been rubbed with mercurial ointment, a severe irritation is set up; this is so severe as to produce vesication at times, and the effects will be observed even if the mercurial inunction has been made some days previously. This explains, partially, the origin of the new variety of balanitis, to which he calls attention in the *Lyon Médical*. It is observed in individuals who, while taking iodide of potassium, make applications of calomel to the glans and prepuce. A severe balanitis generally results. It is very probable that vulvitis, in women, is also often provoked by the same means, so that whenever external applications to the genitalia of men or women are about to be ordered, care should be taken to ascertain whether they are taking iodide of potassium or not. If the former is the case, calomel should be avoided as a dressing. M. Cordier claims that the circumstances alluded to above are a much more frequent case of balanitis than is generally supposed.—*St. Louis Medical and Surgical Journal*, March, 1890.

The Treatment of Eczema in Children.—According to SAALFELD (*Archiv für Kinderheilkunde*), eczema intertrigo about the genital and anal region is especially frequent in fat children, and is usually associated with digestive disturbances demanding the regulation of the diet before anything else. Locally the most grateful and healing application is composed of equal parts of a five-per-cent. solution of boric acid and lead-water applied on pieces of muslin or linen, and renewed every time the diapers are changed. The acute inflammation usually ceases at the end of the second day, when a five-per-cent. ointment of boric acid in vaseline should be substituted for the lotion, painted on with a brush and then covered with the ointment spread on a cloth. If there is much moisture present, the parts should be powdered with talc or equal parts of talc and zinc oxide, and covered with cotton dusted full of the powder. The diapers should be changed frequently, and the old powder, if wet and caked, removed before new powder is applied. In fat children with eczema of the head the supply of fat in the food must be lessened, the frequency of nursing being reduced. If constipation is present, small doses of calomel may be given. Locally all crusts are to be removed by soaking in oil and then removing with soap and water. If much exudation is present, Lassar's paste, with boric acid five per cent., or the benzoated oxide of zinc ointment, may be used. If there is not much exudation, apply a simple five or ten-per-cent. boric-acid ointment. In the squamous stage an ointment of fifteen grains of white precipitate, sixty-five grains of balsam of Peru, and an ounce of zinc oxide ointment will soon complete the cure. The skull-cap of linen is a necessary adjunct to this treatment, and it is well to bind up the hands to prevent scratching. In general eczemas of strumous children either phosphorus or arsenic in cod-liver oil must be administered. Water must be kept away from all eczematous skins.—*New York Medical Journal*, March 8, 1890.

Prescription for Eczema of the Anus and Scrotum.—According to the *Journal de Médecine de Paris* the following is a favorite prescription of Unna for obstinate eczema of the scrotum and anus:

℞.—Linseeed oil, Lime water, Zinc oxide } of each . 6 drachms.
Iodoform . . . . 1 to 2 " —M.

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SATURDAY, MARCH 15, 1890.

INTRA-TRACHEAL INJECTIONS OF CREASOTE OIL IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

FROM a theoretical point of view, the discovery of the cause of a disease is the first step toward its specific treatment; but, practically, this is far from being the case. The causes of the very few diseases for which we have specifics have been ascertained long after the latter had been universally employed. Such well-known facts might have moderated the therapeutic expectations that were raised by Koch's discovery of the tubercle bacillus, and doubtless did so in the minds of many thoughtful men who had felt the irony of the maxim: *Sublata causa tollitur effectus*. The search for specifics, however, is still pursued; and the failure of one investigator seems only to incite another to greater and more daring activity. The latest example of this tendency is found in the treatment of pulmonary tuberculosis by intra-tracheal injections, as pursued by DOR, of Lyons, and described in the *Revue de Médecine*, Nos. 10, 1889, and 2, 1890. This method is a modification of that employed by Beehag in the treatment of laryngeal phthisis. The latter, by means of a specially constructed syringe, injected mentholated oil into the larynx, whereas Dor, after slightly altering the instrument, injects creasote oil into the trachea, with the object of causing it to penetrate into the lung parenchyma. That this object may be thus accomplished is proved by experiments on animals, undertaken by Dor before the application of the treatment to man.

If a guinea-pig be killed immediately after the intra-tracheal injection of one cubic centimetre of creasote oil, the latter will be found to have reached the smaller bronchi, and after the lapse of from twelve to twenty-four hours numerous alveoli will be filled with the medicament, which may be found in the pulmonary parenchyma during the period of fifteen days.

In view of the tardiness with which creasote oil disappears from the lung tissue, Dor experimented with two other vehicles for creasote—vaseline and glycerin—but found them both inferior to olive oil, the former giving rise to numerous hæmorrhagic extravasations, and the latter causing intense dyspnœa, marked symptoms of asphyxia, and, in some instances, hæmoptysis.

Dor's solution is composed of five grammes of pure creasote to one hundred grammes of olive oil, sterilized by boiling, and the quantity injected varies from 0.50 to 2 cubic centimetres.

The immediate effect of the injection varies with the individual susceptibility, from paroxysms of cough to well-marked laryngeal spasm. In one instance Dor performed intubation after the injection, although he says the demand for it was not urgent. Very soon after the injection all disagreeable sensations disappear, and a tolerance for them is soon established; so much so that some patients are said to continue talking until the moment of injection, resuming the thread of their discourse, or completing an interrupted sentence, immediately thereafter. One patient, after leaving the hospital, administered the injections to himself.

Dor characterizes the injection of medicinal substances into the lung tissue by puncturing the subclavicular tissues or the trachea as a barbarous proceeding, and in this we are inclined to agree with him. The criticism to which all intra-pulmonary injections are exposed is the absence of certainty as to their direction. With Dor's method there can be little doubt that the injected material must invade and occlude a certain number of sound alveoli, every one of which is needed for the function of the crippled lung. He endeavors, it is true, to direct the injection toward one side or the other by advising a left lateral decubitus when the left lung is affected, and *vice versa*, and no doubt with a certain amount of success.

This method of treatment has been followed systematically in twenty cases which, so far as their progress is concerned, may be divided into three classes: 1. Those exhibiting marked improvement. 2. Those whose improvement was slight. 3. Those whose condition remained the same or grew worse.

The first class numbered seven and the improvement was manifested principally by diminution or cessation of cough, and increase in weight. In these cases, with one exception, the treatment lasted more than fifty days, from three to ten grammes of pure creasote in from sixty to two hundred cubic centimetres of oil having been injected.

The second class numbered eight, and was characterized by diminution of the expectoration, slight increase in weight and reappearance of appetite. As a rule the cough persisted. The treatment in these cases lasted from seventeen to sixty-eight days.

Of the remaining five cases, the treatment was imperfectly carried out in three, and the remaining two were complicated with pleurisy.

Dor advises that the treatment be continued for at least one month, during which two cubic centimetres of creasote oil are injected twice daily. In cases with large vomicæ, he recommends the employment of a more powerful antiseptic than creasote, and suggests a solution of camphorated naphthol.

The results reported by Dor, although based upon a small number of cases, seem to warrant a further trial of this mode of treatment. The chief obstacle in its way is that it calls for a degree of manual skill possessed by few, and this fact may be used either as an argument for the reference of phthisical cases to the throat specialist or the cultivation of the use of the laryngoscope by the general practitioner.

REVIEWS.

A MANUAL OF ORGANIC MATERIA MEDICA. By JOHN MAISCH, Ph.M., Phar.D. Fourth edition. 12mo., pp. 539. Two hundred and fifty-nine illustrations. Philadelphia: Lea Brothers & Co., 1890.

A WORK which, like the one before us, has passed through four editions in seven years, is too well known to require more than a passing notice. The scope of the work "embraces the drugs of animal and vegetable origin recognized by the Pharmacopœias of the United States and Great Britain, supplemented by important non-officinal drugs." The subject is one in which a good classification is almost as important as accurate description, and each of these requirements is so well attained by Professor Maisch that materia medica is divested of much of its proverbial "dryness."

The present edition differs from the preceding chiefly in the addition of a list of drugs arranged according to origin—an arrangement which seemed to be particularly appropriate at the present time, in view of the approaching revision of the United States Pharmacopœia.

Not the least important feature of the volume, is the number and excellence of the illustrations, which are remarkable for clearness and perfect execution.

The book is warmly recommended to students as a text-book, and to physicians and pharmacists as a work of reference.

THE PHYSICIAN'S LEISURE LIBRARY. EDUCATION AND CULTURE AS CORRELATED TO HEALTH AND DISEASES OF WOMEN. By A. J. C. SKENE. 12mo., pp. 127. Detroit: George S. Davis, 1889.

JUST at this time, when so much interest is shown in the subject in which this book deals, it is not unnatural that so pushing a publisher should put upon the market a book written by one whose long experience should certainly qualify him to act as a judge concerning the questions of which he writes.

The book before us is written in an easy conversational style, and is not loaded down by a large amount of stupid statistics and figures, devoted to the proving of the statements of the author, and, at the same time, a sufficiently scientific tone is maintained to prevent the text from becoming too dogmatic. Through an error on the part of the printer, we notice that on the cover the author's name is placed as "J. A. C. Skene," but on the front page as "A. J. C. Skene," the latter, of course, being correct.

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON PEDIATRICS.

Stated Meeting, February 13, 1889.

L. EMMETT HOLT, M.D., IN THE CHAIR.

DR. A. SEIBERT presented an improved sterilizer and set of nursing-bottles, and read a paper entitled

A REFORM IN ARTIFICIAL FEEDING OF INFANTS.

He said, at the outset, that all food entering the body above the requirements for nutrition, was a hinderance to digestion and a danger to health. It might be stated as a rule, to which the exceptions are few, that children who are artificially fed are over-fed, often very greatly so. It is only very recently that the mind of the medical profession has been turned at all in the direction of the quantity of food required by infants. It has been said by many writers that healthy children fix a proper limit for themselves; that children ought to be fed from the breast or bottle until they have had enough, etc. Hitherto, those who have studied the subject of quantity in infant feeding, have made their calculations according to the age of the child, and have disregarded other conditions. One cause for the continued over-feeding of infants, has been that the ordinary nursing-bottles in use have been much too large, often only a single size being

used during the whole period of infancy, or at least for the first year.

During the last two years, Dr. Seibert has made a very large number of experiments in weighing infants, to see if it were possible to deduce from the weight a rule as to the quantity of food which would be a good guide in practice. From these experiments, covering observations upon over two hundred cases, he has formulated the following rules:

Children of 6–8 pounds require 3 ounces at a time every 2 hours by day, or 8 bottles in the 24 hours.

Children of 9–10 pounds require 4 ounces at a time every 2 hours by day, or 8 bottles in the 24 hours.

Children of 11–14 pounds require 5 ounces at a time every 2 hours by day, or 7 bottles in the 24 hours.

Children of 15–16 pounds require 6 ounces at a time every 2 hours by day, or 7 bottles in the 24 hours.

Children of 17–18 pounds require 7 ounces at a time every 2 hours by day, or 6 bottles in the 24 hours.

Children of 19–20 pounds require 8 ounces at a time every 2 hours by day, or 6 bottles in the 24 hours.

The apparatus devised by Dr. Seibert consists of a tray, capable of holding eight bottles, and which may be placed in any ordinary cooking pot or steamer. The bottles are made in six sizes, the smallest holding three ounces, and the largest eight ounces. The bottles are somewhat oval in form, with a small, flat bottom, without any neck, and with no angles, so that they can be cleaned with the least possible difficulty. They are closed during steaming by rubber corks which have a furrow in the lower third, to allow the steam to escape during the steaming process; at this time the cork is pushed only partly into the bottle. When the steaming process is completed, these corks are pressed down and the bottles made air-tight. The tray is made of tin, and one size can be adapted to hold the different sizes of bottles. Two cupfuls of water are put into an ordinary pot or steaming apparatus, and the tray set in. Dr. Seibert advises the steaming to be continued for thirty minutes in the cool season, and forty-five minutes during warm weather. The apparatus, including the tray, eight bottles with stoppers and rubber nipples, has been manufactured so that it is retailed for one dollar. Upon each bottle is stamped in the glass the frequency of feeding, and the weight of the child for which it is advised. For example, upon the eight-ounce bottle, "for a child of 18–20 pounds, feed every three hours." Upon the smaller bottles is a mark indicating the level to which the bottle should be filled with milk, and the remainder with some diluent, either barley, gruel, oat-meal gruel, etc. The advantage of having the bottles of different sizes, and of such a capacity that they are to be filled for each meal, is evident. There is no temptation on the part of the mother to put two or three meals in one bottle, and she has always measured for her the proper quantity for a single feeding. Dr. Seibert stated that this apparatus was intended especially to meet the wants of the poor and ignorant classes, among which the most serious consequences of over-feeding were seen, often little or no attention being given to the quantity of food administered. After two years' experience with this method of feeding, being guided by the weight, and not the age of the child, in ordering the quantity of food, Dr. Seibert is firmly convinced that the principle is correct. It is to be applied not only to healthy, but also to convalescent children. The amount of work done by different infants is practically the same, consequently the amount of food required will depend upon the size of the body and the amount of tissue to be nourished.

DR. J. LEWIS SMITH opened the discussion upon Dr. Seibert's paper. He thoroughly appreciated the dangers from over-feeding, and regarded this evil as perhaps the most potent cause of gastro-intestinal diseases. He was not quite convinced as yet, that our former method of being guided in the quantity used by the age of the child, was altogether wrong. It was certainly true that there were many cases in which, were we guided by the weight alone, we would fall into error. For example, many children suffering from rickets have large bodies with flabby tissues, often exceeding in weight, by three or four pounds, healthy children of the same age. Manifestly, in this condition, it would be wrong to increase the amount of food according to the child's weight. In convalescing from acute diseases, when a child had been greatly wasted, he thought it would not be a good guide to follow only the weight of the child. Its appetite, its power of digestion, and its general well-being, are also to be taken into consideration. Dr. Smith presented a table quite similar to that published by Dr. Rotch in Keating's *Cyclopædia*, which he had deduced from some experiments made in two institutions to ascertain the actual amount of food taken by nursing infants. Dr. Smith was not prepared to give up the old method of deciding how much a baby should be fed.

DR. J. E. WINTERS thought that Dr. Seibert had overstated the frequency of over-feeding among artificially fed children. He could point to a large number of children brought up artificially, in which this had not been the case. He said it was a great mistake to say that the amount of work done by two infants of the same age was the same. One infant would be in almost continuous motion, and its muscles in a state of frequent contraction. Another would be quiet, and sleeping most of the time, getting very little exercise. He thought as much difference was seen in infants, in the amount of muscular work performed, as between an ordinary day-laborer and a bookkeeper. He was inclined to agree with Dr. Smith, that it was only exceptionally true that the weight was a correct guide to the amount of food required. He thought we would be worse off than at present if such a method were generally adopted. There was no more reason why two infants of the same weight required the same amount of food than two adults. It certainly was not true that a man of 225 pounds required double the food of a man weighing 112 pounds.

DR. W. P. NORTHRUP believed that Dr. Seibert's work was a step in the right direction. He thought the cases stated by both Drs. Winters and Smith were exceptional ones. What Dr. Seibert was aiming at was a general rule for practice, and he believed the one which had been presented would prove useful. Certainly, in the matter of bottles, the apparatus presented was a great improvement upon any now in the market. In regard to sterilizing milk, he did not think that boiling for thirty minutes was sufficient to destroy all the germs present. It might possibly be sufficient to destroy the ordinary germs which sour milk, but was not enough for the bacillus tuberculosis. It ought to be understood by all

that steam was much more effective as a sterilizing agent than hot water, the water bath being but a very poor substitute for steam. This was often used with the idea that it was ample.

DR. DORNING believed that all the circumstances surrounding the child should be taken into consideration in prescribing its quantity of food. If too much was given, vomiting almost always took place. The quality of the food, as much as the quantity, should be taken into consideration.

DR. SEIBERT thought that the regurgitation of food, or vomiting, was not a good guide as to the fact of over-feeding. A large number of these children never vomited, but suffered more or less from intestinal indigestion and dyspepsia. He had found the method advocated to be most beneficial in cases of convalescence from acute diseases, where, week by week, or day by day, if necessary, according to the increase in weight of the child, the food should be steadily increased.

The CHAIRMAN stated that he thought Dr. Seibert was in error in stating that the weight of the child and the capacity of the stomach bore a constant relation to each other. For the past two years he had been measuring, at autopsy, the stomachs of all infants, these being very carefully distended under hydrostatic pressure until all the folds of the mucous membrane were obliterated, but not beyond this point. These investigations showed a pretty constant relation between the age of the child and the stomach capacity. Thus, beginning with one ounce at birth, it increased on the average nearly one ounce a month for the first six months, and one-half an ounce a month for the second six months of life.

DR. E. L. PARTRIDGE reported a case of

SUDDEN DEATH IN AN INFANT FROM AN UNUSUAL CAUSE.

A stout, well-nourished infant, four months old, in care of a wet-nurse, was put in its crib after nursing, and was found dead half an hour later. The child was reported to have been shaken slightly by the nurse before putting it down. No other evidence of violence could be discovered. At the autopsy the trachea, larynx, and larger bronchi were found to contain a considerable quantity of milk. There was also milk in the œsophagus and pharynx. It was Dr. Partridge's opinion that death had been caused by the entrance of milk into the air-passages.

DR. WINTERS suggested the probability that the child had also been drugged by the wet-nurse, this practice being so exceedingly common with this class of women.

CORRESPONDENCE.

PARIS.

Diabetes. Hypnotism in Obstetrics. Ambulatory Automatism. Suture of the Patella.

To the Editor of THE MEDICAL NEWS.

SIR: PROFESSOR LÉPINE, of the Faculty of Lyon, has confirmed the existence of pancreatic diabetes, which has been clinically demonstrated by Dr. Lancereaux. Dr. Lépine has demonstrated that the complete removal of the pancreas of a dog is followed by a more or less pronounced diabetes. This diabetes, however, does not occur if the slightest portion of pancreas is left, even if the excretory duct has been removed. This the author explains in two ways:

The first theory is that in the normal state part of the pancreatic ferment is re-absorbed and contributes to the destruction of the glucose which may be present.

In fact, if a pancreas is cut to pieces and then placed in a solution of glucose, we find, after a certain lapse of time, that the quantity of sugar has diminished.

The second hypothesis is based on the fact that with diastase starch is transformed into maltose, then into glucose, and that the same occurs when the pancreatic juice is brought in contact with glycogen.

The transformation of glycogen into glucose is, then, a complicated process, which necessitates the intervention of the pancreatic ferment. In the normal state, this ferment is re-absorbed by the pancreatic veins, and passes to the liver through the portal vein. If the hepatic sugar increases or diminishes, it is no longer glucose, but a foreign sugar which is eliminated by the kidney, instead of being used for the purpose of combustion. In either case the pancreatic diabetes would be the result of the presence of too small a quantity of ferment, and a diabetic state would result in consequence of the relative deficiency of ferment, as compared to the quantity of hydrocarbon to be destroyed.

To prove the diminution of the quantity of ferment in the blood, the following experiment has been made. The entire arterial blood of two dogs is separately collected, both dogs having been fasting for sixty hours; but one is normal, while in the other the pancreas has been completely removed. The quantity of sugar of these two specimens of blood diminishes; but while, at the end of fifteen hours, the diminution has amounted to thirty-nine per cent. in that of the healthy animal, it was only eight per cent. in the other.

Again, if we add to each blood, as soon as it is withdrawn, an equal quantity of starch, we find that six times less sugar is produced in the blood of the mutilated dog than in that of the normal animal; which shows, of course, that the latter's blood is much more rich in ferment.

Drs. Arthaud and Butte have also undertaken a series of experiments on this subject, to determine the reason that the total extirpation of the pancreas brings on glycosuria, as was first indicated by Drs. Minkowski and von Mering.

The first hypothesis previously advanced is, that if the pancreas is removed, the elimination of the pancreatic diastase which is usually contained in the blood fails to take place, it is retained in the organism, and augments the transformation of the reserve of glycogen. To control this fact, Arthaud and Butte have made injections of either vegetable diastase or macerated pancreas, but have never observed glycosuria to follow; hence one cannot admit the accumulation in the organism of a diastase capable of producing glucose.

These authors also reject the opinion of Lépine, who says that the pancreas yields to the blood a ferment capable of destroying the sugar in the economy; if the pancreas is removed, the ferment which destroys the sugar disappears, and we have glycosuria. In an experiment, during which they ligated almost all the veins of the pancreas in a dog, the urine was not found to contain an increased amount of sugar, which phenomenon

should have been observed if the pancreas excreted, by its veins, a ferment capable of destroying the sugar in the organism.

MM. Arthaud and Butte, having observed in their experiments that in every case of glycosuria there was a constant lesion—namely, a dilatation of the hepatic arterial system—thought that the glycosuria might be due to an increase of the hepatic circulation, on account of the suppression of an important collateral circulation. To establish this fact, they ligated the different branches of the cœliac axis of a dog, excepting the terminal branch of the hepatic artery; the animal died at the end of three months, and sugar was always found in his urine. The naked-eye appearance of the pancreas showed no alteration, which is not astonishing, as the arterial circulation had been reëstablished in this gland by the mesenteric artery which had not been ligated.

Dr. de Grandchamps has used hypnotism in one of his hospital obstetric cases, with most gratifying result. The patient was a girl, seventeen years of age, with no signs of hysteria. She presented herself at the hospital in the fifth month of her pregnancy. Dr. de Grandchamps thought of preparing the patient beforehand, so that he might fully hypnotize her when labor came on. She was easily hypnotized at the first *séance*, and Dr. de Grandchamps repeated the hypnotization two or three times every week, with great benefit to the patient, who was very anæmic. She rapidly recovered her health, her cheeks became red, and her appetite and sleep perfect. Finally, labor began; the dilatation of the neck was complete. As in every labor, the contractions were most painful to the patient, as indicated by her loud cries. In the quiet moment following a contraction, Dr. de Grandchamps rapidly hypnotized the patient, and suggested to her to bear down when the contractions came on, but that she would feel no more pain. From this moment the contractions became very strong, but the patient did not utter the least cry or sound. After awhile, the doctor, desiring to increase the rapidity of the labor and to regulate the contractions, commanded the patient to bear down every minute. The order was obeyed, and every minute a contraction took place, followed by a period of repose. This methodical bearing-down soon brought the head to the vulva, and, as she was a primipara, fearing a too hasty expulsion, the order was given her to bear down no longer. From this moment the movements stopped, and the head and trunk came out slowly, without active intervention on her part. A quarter of an hour after her delivery this young woman awakened, and could not believe that she had been delivered.

A very interesting case of ambulatatory automatism, first described by Charcot, has occurred in the practice of Professor Prourt.

The patient is a man, thirty-three years of age, son of a nervous and inebriate father, mother also nervous; he has a brother deficient in intellect. The patient, however, is very intelligent, well educated, and one of the lawyers of Paris. He presents unmistakable signs of hysteria, and he can be very easily hypnotized. Professor Luys, who has treated him, found that a loud noise would immediately throw him into this hypnotic state. On one occasion he fell into the hypnotic state in the street from glancing at a mirror. On another occasion, while pleading in a court of law, the president looking at him, he suddenly fell asleep, stopped his discourse, and was only able to resume it when a friend had awakened him.

At other times his memory is completely lost; he entirely forgets his past existence and his own personality, but during this state a sort of new life begins for him, and a new memory and individuality are established. He walks, travels on railroads, makes social visits, and, finally, suddenly returns to his normal state, forgetting all that has taken place.

After a violent discussion on the 23d of September, he lost his memory until the middle of October; he does not know what he has done, how he has lived, where he has been. In the middle of October he found himself in a village at some distance from Paris, and then came back to his normal state. During that time, he discovered later, he had contracted debts for over one hundred dollars; and, having stolen money, he was condemned for theft by a court of law.

This is a clear case of ambulatory automatism, and shows:

First, a suspension in the continuity of consciousness although the individual is able to conduct himself as in ordinary life and without attracting attention.

Second, if there exists a discontinuity between the phenomena of consciousness of the secondary condition and those of normal life, there is, on the contrary, a continuity of consciousness between the periods of this secondary condition—for instance, this patient in his normal state ignores what he has done during the periods of ambulatory automatism; but if he is placed in the hypnotic state, he enters into this secondary condition, and is then enabled to recollect everything that occurred while previously in that condition. When in the normal state he is unable to recollect what he did between September 23d and October 15th; when hypnotized, he tells the details of his life during that period.

At a recent meeting of the Academy of Medicine, Dr. Lucas Championnière read an interesting communication on the treatment of fracture of the patella by opening the knee-joint and wiring the fragments. The observations included fourteen cases of patellar fractures, four being old fractures, and nine recent, and in one case the patella was intentionally ruptured on account of vicious union. The operations for the recent fractures were made between the first and twelfth day; two were made less than twenty-four hours after the fracture, and one less than twelve hours after. Rapid intervention is always advisable. The articulation is well cleansed, and, after having removed splinters of bone, the patella is sutured by means of two wires passed through the middle. The parts surrounding the articulation are drained with care, as there is always more or less effusion. Finally, he places the limb in a splint for eight days, after having dressed the wound. The limb is not kept completely immovable. It is only between twenty and twenty-five days after the operation that the patient is allowed to walk, and it is surprising to note how rapidly he is enabled to do so. In recent fractures osseous union is positive, as it is quite impossible to find an interval between the fragments, and one can feel the wires through the skin.

The patella becomes very strong, and when the patient is cured no appreciable difference will be found

between the diseased and healthy limb, and this result is permanent. No other treatment will allow a patient to walk perfectly within six weeks or two months.

When the ordinary methods of treatment have been used previous to the operative intervention the results are not so favorable; out of five cases, a perfect union was obtained in two, but in three other cases the separation between the fragments was not completely obliterated, though the silver wires were retained in position.

This operation must, of course, be done under the strictest antiseptic precautions, and strong silver wire should be employed. Dr. Championnière especially insists on the importance of not rendering the articulation immovable after the operation.

VIENNA.

To the Editor of THE MEDICAL NEWS,

SIR: The treatment of tabes dorsalis has attracted a good deal of attention here lately, following the French experiments of suspending the patient and trying to influence the sclerosis by stretching the spinal cord. No one knows how any effect can be produced, but it is certain that some slight improvement takes place, probably because the hopes of the patient are revived by complicated machinery. It has been tried here, but, just as pathologists predicted, with no other results. Hardly a week passes without our seeing a new case of the disease in Nothnagel's wards. Erb has been studying its etiology, and from an experience in several hundred cases, has proven that ninety per cent. of the afflicted are syphilitic. In Nothnagel's wards the same proportion holds, and, judging from this, a very close etiological connection seems to exist between syphilis and tabes. This is further borne out by the experience that potassium iodide and mercury are often beneficial if given early in this disease.

Professor Esmarch, of Kiel, has recently published a new theory which has already received support from such men as Czerny and Albert. According to Esmarch, there has been so much syphilis among the lower classes in Europe that has not been thoroughly treated, that by heredity nearly all the population have some of the virus in their blood, but in such attenuation that it causes few acute symptoms. Now, in a very large number of tumors that resemble sarcoma almost exactly, microscopic examination fails to show the characteristic cells of this neoplasm, but does give the appearances peculiar to gummata. In most cases where this occurred in Esmarch's extensive practice, he declined to remove the growth by operation, but used inunctions of mercury and general anti-syphilitic treatment. To his great surprise, he was remarkably successful in this method. He first used the method only in cases where an operation was impossible; he then applied it to less advanced cases, and gradually formulated his ideas until now he says that many cases of apparent sarcomata are really gummata, and curable by antisyphilitic treatment. In sarcoma, when operation is no longer practicable, Albert uses deep injections into the tumor of Fowler's solution. Beginning with one drop, he gradually increases to thirty drops daily, and then gradually diminishes the dose. For an hour or two after the deep injection the patient has severe chills and high temperature, an intense itching in the skin, and signs of collapse; but these symptoms soon disappear, and are followed by a long period of perfect ease. I have seen the size of the growths diminishing decidedly with this treatment, but, of course, it is only a palliative measure.

One of the most remarkable cases of heart malformation on record was shown at Nothnagel's clinic lately. A boy of eight years had been in the hospital for several months, with a diagnosis of "pulmonary stenosis and communication between right and left ventricles." The boy died from pulmonary hæmorrhage, and at the post-mortem was found the following: The left auricle opened normally into the left ventricle; the right auricle also opened into the left ventricle, but there was no communication between the right auricle and right ventricle; from the left ventricle the mixed blood from both auricles was sent to the aorta and also through an opening into the right ventricle, and thence into the pulmonary artery. The left ventricle was large, its walls hypertrophied, and it had four valves: one from each auricle, one to the aorta, and one to the right ventricle. The right ventricle was very small, and seemed to be a mere antechamber to the pulmonary artery; it had no communication with the right auricle. There was stenosis at the pulmonary artery. Owing to the mixed character of the blood, the boy always looked intensely cyanotic; his skin was cold and clammy, and his temperature always a degree or two below normal.

The excruciating pains of tic douloureux have given rise to great variety of treatment, illustrating the adage that "the more remedies the less cure." Fränkel has now a new plan which he claims is superior to all others. He gives a hypodermic injection of cocaine in the affected place, and then applies the strongest current of faradic electricity the patient can bear, placing one pole at the foramen of exit, and the other on the course of the nerve about half an inch distant. Without the cocaine the current could not be applied strong enough. There have been excellent results in the cases we have seen, and the method certainly deserves further trial.

Cirrhosis of the liver is a common trouble in Austria, and innumerable remedies have been used for its relief. In the University clinics they now prefer calomel given by the Russian method—*i. e.*, one-half to one grain daily. It promotes diuresis, and by this means probably reduces the ascites. They also give it in cases of hepatic enlargement from passive hyperæmia, where it does excellent service. There is an evident current in professional opinion here that is limiting the number of medicines ordinarily used. It is rare to see a prescription from the professors here that contains more than two or three ingredients. Simplicity in therapeutics is the password, and the day of the "shotgun prescription" is evidently past. The great University here has but one Professor of Materia Medica, while all the other departments have numerous representatives. The study seems to tend toward pathology more than in any other direction. From a knowledge of the changes produced by disease they are striving to discover how to prevent and how to cure. Every case that dies in the hospital is examined most thoroughly post-mortem, and four skilled pathologists attend to this work. Thus there is always proof of correctness or mistake in diagnosis, and the diagnosticians are constantly held to facts, and reminded of their fail-

ures, so that every error is a lesson of great value. It is because of this system that the Vienna clinicians have such a reputation in diagnosis—they never fall into errors without the constant influence of pathology bringing them back to facts.

A few days ago, Dr. Rosthorn, assistant at Professor Chrobak's gynecological clinic, operated on a case of apparent ovarian cyst. Eight weeks before, the woman had been delivered of an eight months' child, normal labor, and had been perfectly well until three weeks previous to the operation. The operation was made in the ordinary way, and the supposed cyst removed. At one portion of it a peculiar cord-like process was attached. Rosthorn examined the other ovary—it was normal—but, while examining it, a small hand slipped out from between the intestines. This was seized, and a full-sized child was removed from the abdomen, and to its umbilicus was attached a cord exactly similar to that found on the cyst. They then looked for the fœtal membranes, and found them very deep and everywhere adherent to the intestines and peritoneum. The child's skin was nearly normal, though slightly macerated. Then the membranous sac was brought up and sewed to the peritoneum, just as the stump is treated in extra-peritoneal amputation of the uterus; the abdominal walls were united, and the sac dusted with salicyl-tannin. The woman rallied, and now, seven days after the operation, is doing very well. The careful examination of the removed cyst showed that the tumor was merely the placenta coiled up where it had been fastened to the left Fallopian tube, and the case now resolves itself as follows: There was an extra-uterine pregnancy, with the fœtus in the left Fallopian tube, and this fœtus was carried beyond term, and died. Throughout the time there were no symptoms from this extra-uterine pregnancy, and an intra-uterine pregnancy went on nearly normally at the same time. It cannot be established, though it is probable, according to the authorities here, that the two children were really twins, and one developed within, the other outside of, the uterus. Thus it stands without a parallel in the history of obstetrics, and the full report by Rosthorn will be looked forward to with great interest.

Bacteriological investigation goes on constantly with undiminished vigor, and at last the subject of malaria seems settled. It is taught here that the plasmodium malariæ is the cause, that it enters the blood, taking up its abode in the red corpuscles, and gradually growing therein. At first it is very small, one-fifth the size of the corpuscle, but as it grows it takes up pigment, which is deposited in small granules in its periphery. It grows until it completely fills the corpuscle, and then it divides into a number of daughter cells that repeat the same process, and at the division the pigment granules are set free in the blood, causing the well-known *melanosis malariæ*. There is very little malaria in Vienna, but Dr. Bamburger, Nothnagel's first assistant, told us that in every case they succeeded in finding the plasmodium. The use of quinine diminishes the number of the organisms very markedly, and in case of cure they can no longer be found. They are also more numerous just before the chill, and immediately afterward are hard to find, for then the division has taken place, and the small cells escape observation far more easily. Golgi, an Italian pathologist, has written an excellent monograph on this subject.

Professor Rosenthal, the author of a work on nervous diseases, died here a few weeks ago, a victim to the influenza. Professor Albert is very ill at the present time, from some throat trouble, and Docent Hochenegg is filling the chair during his chief's absence.

In the last few years there have been twelve Cæsarean sections in Chrobak's clinics; they were all made after the Porro method, and in no case was child or mother lost. In the last thirty cases of uterine fibroids removed by the extra-peritoneal method of amputation there were but three deaths, and the mortality in simple ovariotomy has been reduced to almost *nil*. The most thorough antiseptic precautions are observed here, and to this are attributed these wonderful results.

LONDON.

The Late Sir William Gull; The Study of Infectious Diseases; The Chloroform Commission; The Re-constitution of the University of London.

To the Editor of THE MEDICAL NEWS,

SIR: The death of Sir William Gull has removed from our midst one who has occupied for the past quarter of a century the most prominent place in medicine, though for the last two years, since a slight cerebral attack, he had been unable to engage in practice. Sir William Gull's great reputation and success were earned by most assiduous clinical work in his younger days. For fifteen years he lived practically, if not actually, in Guy's Hospital, and devoted himself entirely to clinical medicine and pathology, and his writings in the well-known annual reports of this hospital are a sufficient proof that he made the most of his opportunities. I have heard regrets that he never wrote a book; but book-makers are not, as a rule, the people who do good original work, but rather those who know how to assimilate the work of others, and Gull's work will undoubtedly live and undergo this process of assimilation. Had it not been for the failure of his health, there can, I think, be little doubt that he would have attained to the highest distinction open to a physician, viz., the presidency of the College of Physicians, when Sir William Jenner retired some two years ago; but, unfortunately for him, his working days were then already over. It is pretty generally believed that had it not been for his incessant care the Prince of Wales would not have pulled through the very severe attack of typhoid fever which imperiled his life about eighteen years ago.

In my last letter I alluded to the steps that were being taken to afford facilities for the study of infectious diseases in London. I am happy to be able to report that the negotiations that were then in progress have been brought to a most successful issue, and the details of the scheme by which the fever hospitals of the Metropolitan Asylums Board were laid before the College of Physicians at the last meeting, and unanimously approved. It will mean, no doubt, a prolongation of the medical student's career, but except on the score of expense, there is nothing to be said against it. At present, the study of these diseases is not compulsory, but, no doubt, many students will not be slow to avail themselves of the much

desired opportunity for becoming familiar with measles, scarlet fever, *et hoc genus omne*, before venturing into practice on their own account, and in a few years it is quite likely that we shall find that a three months' clerkship at a fever hospital is a *sine qua non*.

Dr. Lauder Brunton has returned from his chloroform experiment expedition in India, and has published the results of his investigations in the *Lancet*, and also in a paper read before the Medical Society at its last meeting. He tells us that chloroform and ether act in the same way; that both paralyze the respiratory centre before the heart; that if you push one or the other after the respiratory centre has ceased to act, then you paralyze the heart; and that chloroform is a more potent remedy than ether, and will paralyze the respiratory centre and stop the heart earlier than ether. The chief conclusion is, that death from chloroform is due to asphyxia, and that where deaths occurred under such circumstances, they were due to imperfect observation of the respiration; his advice, therefore, is that more attention should be paid during the administration of chloroform to the condition of respiration.

The vexed question of an attainable medical degree for London students is again being agitated. A Royal Commission sat on the subject, and made certain suggestions to the existing University of London, and the senate of that body in their praiseworthy endeavor to meet the views of the Commissioners have issued a scheme of modifications to overcome the existing difficulties, which are admitted on all sides. There are, of course, many who are discontented with the proposals. Hitherto the University of London has been a university only in name; in fact it has been nothing more than a huge machine for examining men, and it has done its work efficiently enough by the standard which it has set, but its rules have been so exclusive that unless a boy decided, whilst still in his teens, that he would endeavor to obtain the degree, it has been almost impossible for him to do so afterward. The preliminary examination which must be passed has blocked the way, and when a student has begun the real work of his profession, he can but rarely afford the necessary time to begin again and pass a preliminary examination. I confess I do not quite see why we may not have an entirely new teaching university here. The population of London alone is almost as great as that of Ireland, where there are three universities, and it is greater than that of Scotland, where there are four; but at present the minds of all are engaged in endeavoring to mould the existing university into something that will do all that is required. I am doubtful if success will be attained, as there are many interests which at present show no symptoms of conciliation. A conclusion must, however, be arrived at before long, as the Commissioners gave the University only one year to consider whether it would make the needful changes, and not a small part of the year has already elapsed without any definite result having been reached.

NEWS ITEMS.

The Boston City Hospital.—The new out-patient building of the Boston Hospital is now occupied. The Home for Convalescents at Dorchester will next be erected, $30,000 having been appropriated by the Common Council for that purpose. The Hospital also needs a new building for its medical and patients' libraries, with a dining room for the house staff. For this addition $18,000 has been asked.

The Price of Quinine.—Contrary to the expectations of many, the enormous consumption of quinine resulting from the pandemic influenza, has not greatly enhanced the price of the drug. A late London trade circular shows that in Mincing Lane the increase has not been more than a halfpenny per ounce. The offerings of cinchona in the market at each fortnightly auction have been so full and regular that the price of the manufactured article could not be materially advanced.

The Modern American Physique.—Dr. J. B. Hamilton, of the Marine Hospital Service, recently delivered an address before the Georgetown Medical College upon the physical culture of ancient and modern times, in the course of which he is said to have made a generalization to the effect that not one-third part of our American population of the military age could pass the physical examination of the recruit.

Starling Medical College.—The forty-third session of Starling Medical College, Columbus, O., closed with appropriate commencement exercises Thursday evening, March 6th, graduating thirty-nine men. During the past term the attendance was larger than it has been since 1852.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 4 TO MARCH 10, 1890.

KIMBALL, J. P., *Major and Surgeon.*—Is granted leave of absence for twenty days.—Par. 1, *S. O. 25, Department of the Missouri.*

HOFF, J. VAN R., *Captain and Assistant Surgeon.*—Is granted leave of absence for one month.—Par. 1, *S. O. 26, Headquarters Department of the Missouri, Fort Leavenworth, Kansas*, March 5, 1890.

MORRIS, EDWARD R., *First Lieutenant and Assistant Surgeon* (Fort Shaw, Montana).—Is granted leave of absence for one month.—Par. 1, *S. O. 28, Headquarters Department of Dakota, St. Paul, Minnesota*, March 7, 1890.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING MARCH 8, 1890.

SCHOFIELD, W. K., *Medical Inspector.*—Ordered for examination preliminary to promotion to Medical Director.

MCMURTRIE, D., *Surgeon.*—Ordered for examination preliminary to promotion to Medical Inspector.

GATES, MANLEY F., *Assistant Surgeon.*—Detached from the Navy Yard, League Island, and ordered to the U. S. S. "Kearsarge."

HARRIS, H. N. T., *Assistant Surgeon.*—Detached from the U. S. S. "Kearsarge," and ordered home.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*